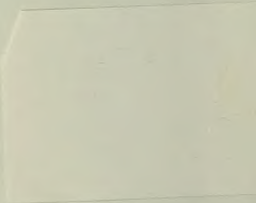




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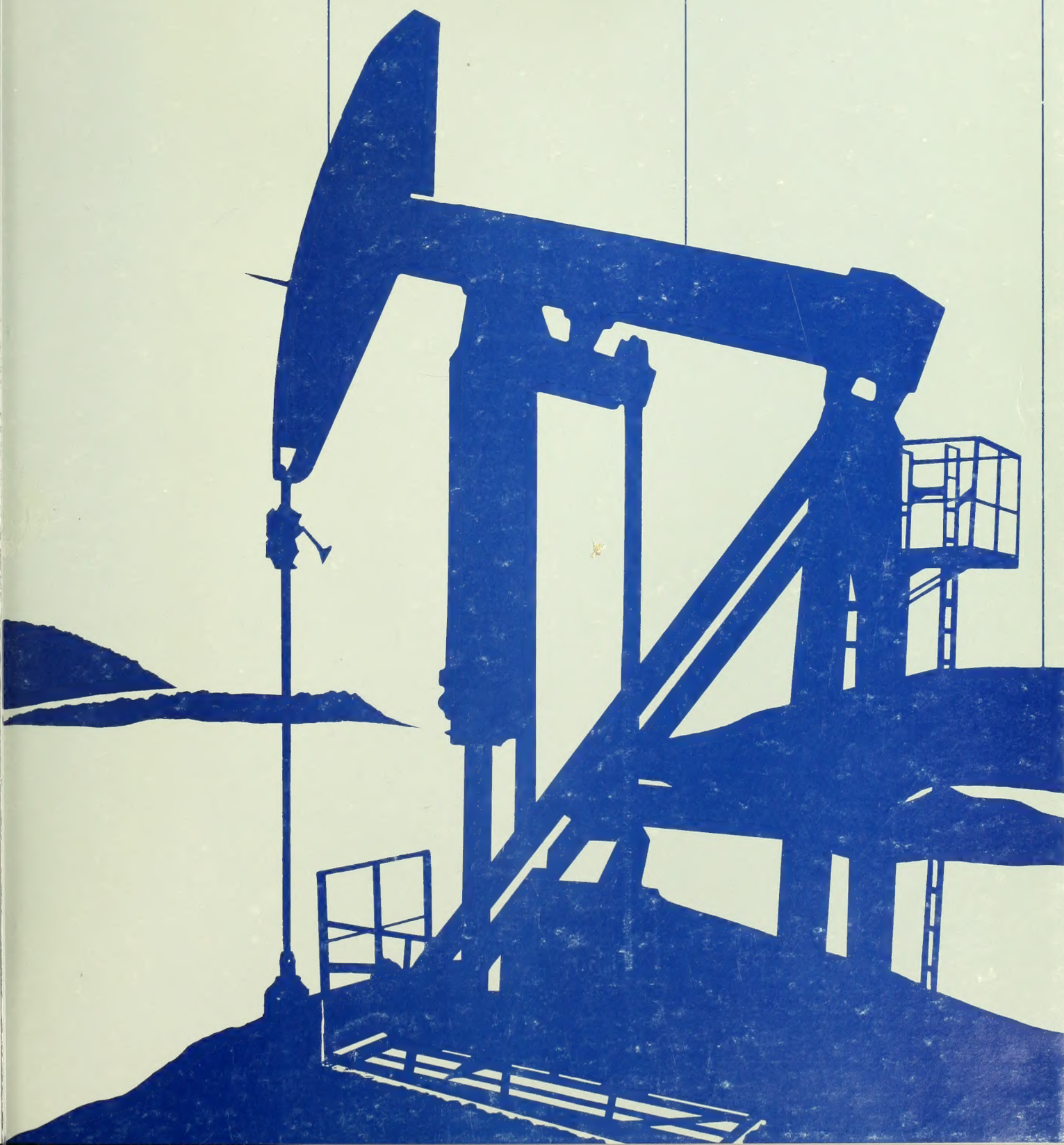
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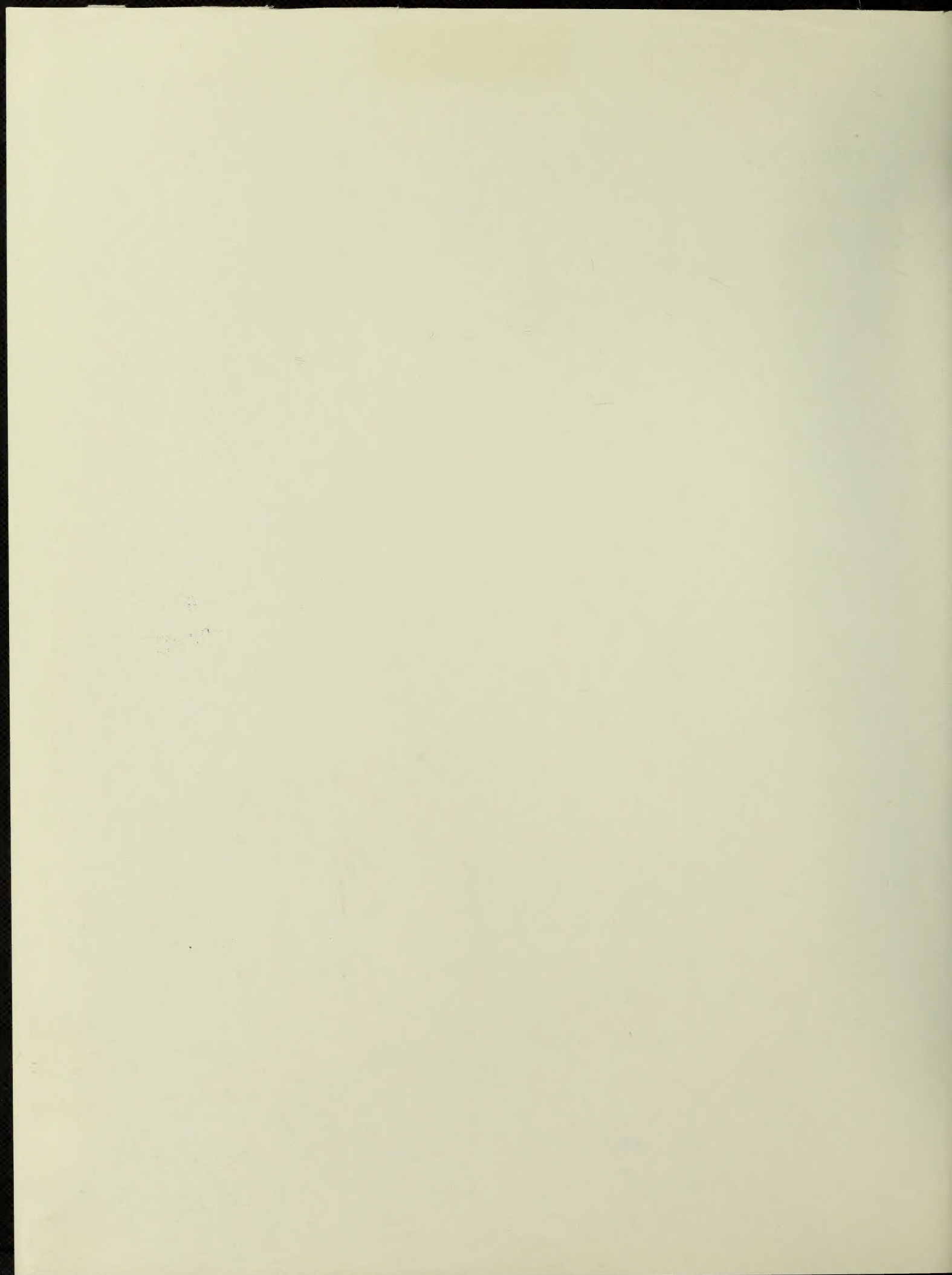
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March 1982



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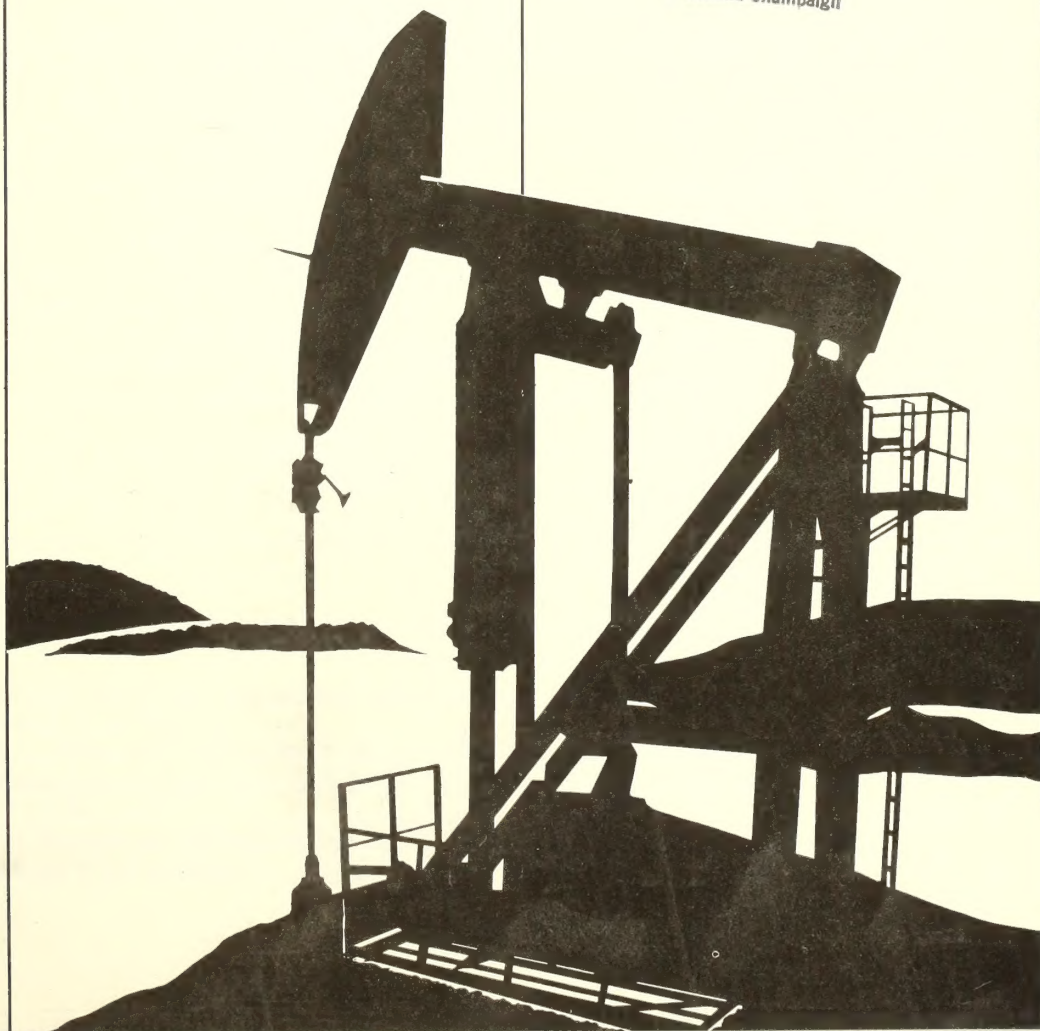
# Petroleum Supply Monthly

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# Introduction

## Introducing the Petroleum Supply Monthly

Beginning with this first issue, the **Petroleum Supply Monthly** (PSM) replaces four Energy Information Administration (EIA) monthly petroleum publications:

- *Monthly Petroleum Statistics Report* (MPSR)
- *Monthly Petroleum Statement* (MPS)
- *Supply, Disposition, and Stocks of All Oils by Petroleum Administration for Defense Districts and Imports into the United States, by Country* (PADD Report)
- *Availability of Heavy Fuel Oils by Sulfur Level* (Sulfur Report)

Care has been taken to insure that all the important information from the four consolidated publications is included in the PSM. The PSM displays these statistics in a comprehensive and cohesive manner, and provides readers with improved explanations of the data.

Articles designed to help readers understand and interpret petroleum statistics will highlight the PSM. These articles may focus upon a seasonal event such as the availability of motor gasoline for the summer driving season, or upon a trend such as the reduced utilization and shutdown of domestic refineries as consumption of petroleum products decreases.

The **Petroleum Supply Monthly** is designed to be convenient for both casual observation and serious analysis. For readers who want to know how the volume of petroleum products being supplied to the domestic market compares with previous trends, the "Summary Statistics" section lists monthly and annual data series and displays them graphically. For a more detailed view of the current situation, energy analysts can study petroleum supply and disposition statistics for a broad range of products in the Detailed Statistics section. As a special service, preliminary monthly statistics derived from EIA's weekly reporting systems are presented with the Summary Statistics.

The Explanatory Notes present objective information describing data collection, estimation, data quality, changes to data collected and interpretation of tables. Industry terminology and product definitions are listed alphabetically in the Glossary.

The following table is designed to guide readers of the four discontinued publications to the PSM tables most likely to have the same information.

MPSR	Tables 1, 2	PSM	Tables 1-5
MPSR	Table 3	PSM	Tables 15, 16
MPSR	Table 4	PSM	Table 14
MPSR	Table 5	PSM	Table 24
MPSR	Table 6	PSM	Table 21
MPSR	Table 7	PSM	Table 20
MPSR	Table 8	PSM	Table 22
MPS	Tables 1-3a	PSM	Tables 1-5
MPS	Tables 4-6	PSM	Tables 15-17
MPS	Table 7	PSM	Table 14
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MPS	Table 13	PSM	Table 19
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MPS	Tables 17-19	PSM	Tables 11-13
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PADD Report	Table	6

PSM	Table	27
PSM		N/A
PSM	Tables	6-10, 25-28
PSM	Tables	6-10, 25-28
PSM	Table	17
PSM	Table	21
PSM		N/A

The PADD Report was not published during 1981 as a separate publication. Beginning with the June 1981 issue of the MPS the following tables were added to replace the PADD Report.

PADD Report	Table	1	MPS	Tables	15-16, 20-26
PADD Report	Tables	2,3	MPS	Tables	15-16, 20-26
PADD Report	Table	4	MPS	Table	6
PADD Report	Table	5	MPS	Table	10
PADD Report	Table	6	MPS		N/A

The **Petroleum Supply Monthly (PSM)** is prepared by the Petroleum Supply Division, Office of Oil and Gas, Energy Information Administration, Department of Energy.

## December 1981 Monthly Petroleum Statement ERRATA

**NOTE:** The Summary Statistics section of this issue contains revisions to 1981 year-to-date figures published in Tables 1, 2a, and 3a of the December 1981 Monthly Petroleum Statement. The revised year-to-date figures for Table 1 of the December 1981 MPS are:

	Thousands of Barrels	Thousand Barrels per Day
(25) Imports (Gross)	536,747	1,471
(27) Imports (Net)	402,890	1,104
(28) Total New Supply of Products	5,807,814	15,912
(30) Total Products Supplied for Domestic Use	5,840,209	16,001
(33) Kerosene-Type Jet Fuel	296,080	811
(37) Liquefied Gases and Ethane	542,176	1,485
(40) Total Product Supplied	5,840,209	16,001

The revised year-to-date figures for Tables 2a and 3a of the December 1981 MPS are:

	Table 2a Thousands of Barrels		Table 3a Thousand Barrels per Day	
	Imports	Product Supplied	Imports	Product Supplied
Natural Gas Liquids and LRGs	92,673	567,705	254	1,555
Liquefied Gases and Ethane	89,015	542,176	244	1,485
Ethane	16,952	127,121	46	340
Propane	25,502	272,493	70	740
Butane	21,851	44,036	60	120
Butane-Propane Mixtures	7,274	10,527	20	20
Ethane-Propane Mixtures	17,436	87,097	48	230
Finished Petroleum Products	447,732	5,385,099	1,227	14,750
Kerosene-Type Jet Fuel	11,160	296,080	31	810
<b>Total</b>	<b>2,183,191</b>	<b>5,840,209</b>	<b>5,981</b>	<b>16,001</b>

# Petroleum Focus



# Petroleum Focus

## U.S. Petroleum Developments: 1981

### Synopsis

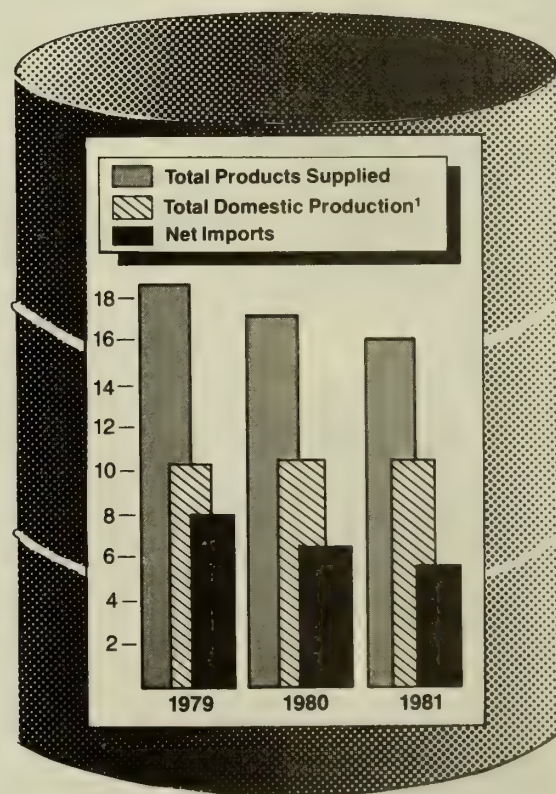
In 1981, the United States significantly reduced its dependence on petroleum imports by reducing domestic consumption of petroleum. This decline in domestic consumption occurred principally as a result of lower economic activity in 1981 and the ongoing effects of repeated sharp increases in petroleum product prices since 1973. Since both domestic petroleum production and domestic stocks were stable during 1981, the 1.1 million barrel per day (6 percent) drop in domestic petroleum consumption resulted in a one million barrel per day (16 percent) decrease in net petroleum imports. (See Exhibit 1.) Imports decreased despite an ample worldwide supply of crude oil and stable world prices.

Domestic prices of crude oil and petroleum products continued to rise for two months following the full decontrol of petroleum prices in late January 1981, then decreased throughout the remainder of 1981. Both the reduction in consumption and the ample worldwide supplies of

Note: 1979 and 1980 products supplied figures for motor gasoline and for distillate and residual fuel oils have been recast to account for data system changes in 1981. They differ from figures shown in the "Summary Statistics." See Explanatory Note 4.

### Exhibit 1. PETROLEUM SUMMARY

Million Barrels per Day



<sup>1</sup>Includes crude oil and natural gas plant production.

Source: "Summary Statistics" Petroleum Supply Monthly

### U.S. Petroleum Summary (million barrels per day)

	1980	1981	Change
Total products supplied	17.1	16.0	-6%
Motor gasoline <sup>1</sup>	6.8	6.6	-4%
Distillate fuel oil <sup>1</sup>	3.0	2.8	-5%
Residual fuel oil <sup>1</sup>	2.6	2.1	-20%
Total petroleum production <sup>2</sup>	10.2	10.2	0
Refinery crude oil inputs	13.5	12.5	-7%
Net petroleum imports	6.4	5.4	-16%

<sup>1</sup>Figures for 1980 recast to account for data system changes in 1981. See Explanatory Note 4.

<sup>2</sup>Includes crude oil and natural gas plant production.

crude oil put downward pressure on the prices of petroleum products.

### Developments in Petroleum Consumption

In 1981, petroleum consumption (products supplied for domestic use<sup>1</sup>) in the United States declined for the third consecutive year. Major reasons for this continued decline were a sluggish economy and petroleum price increases in 1979, 1980, and early 1981. Petroleum remained the dominant energy source, accounting for 43 percent of the country's total energy use. Its share has diminished slowly during the last several years as consumers have conserved or switched to other fuels. (Ref. 1)

The ratio of petroleum consumption to Gross National Product decreased substantially during the 1979-81 period, indicating that energy conservation and other structural changes have had a substantial impact. (See Exhibit 2.) Factors contributing to the continuation of the downward trend were: improvement in fuel efficiencies,

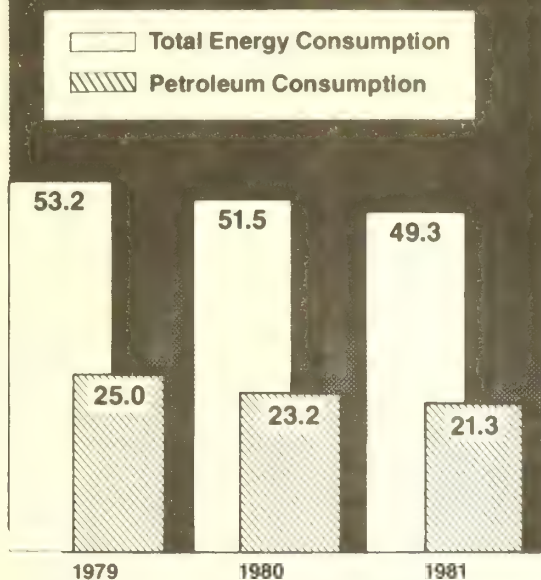
This article was prepared in the Petroleum Supply Division, Energy Information Administration, by Barry P. Berlin, John L. Albright, and William G. Park.

Unless otherwise referenced, statistics in this article were derived from statistics presented in this issue of the Petroleum Supply Monthly.

<sup>1</sup>Petroleum products supplied equals net domestic production of petroleum products, plus net product imports, plus net product stock withdrawals.

## Exhibit 2. TOTAL ENERGY AND PETROLEUM CONSUMPTION PER CONSTANT DOLLAR OF GNP

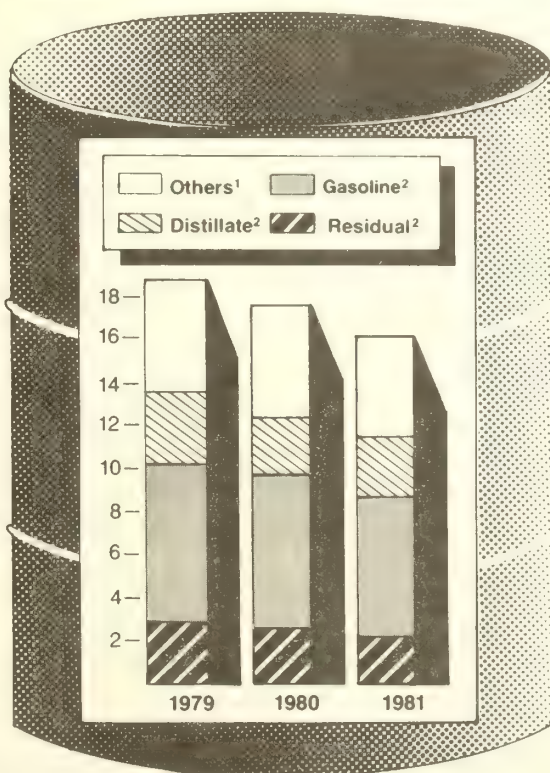
Quadrillion BTU per Trillion 1972 Dollars



Sources: *Monthly Energy Review* and *Survey of Current Business*.

## Exhibit 3. PETROLEUM PRODUCTS SUPPLIED FOR DOMESTIC USE

Million Barrels per Day



<sup>1</sup>Other petroleum products include liquefied gases, jet fuels, and petrochemical feedstocks.

<sup>2</sup>Based on 1979 and 1980 figures by EIA. See Explanatory Note 4.

Source: "Summary Statistics," *Petroleum Supply Monthly*

consumers switching to lower cost alternate fuels, the public emphasis on all aspects of fuel conservation, and petroleum product price increases during the period.

Among the petroleum products, motor gasoline and residual fuel oil accounted for two-thirds of the 1.1 million barrels per day decline in petroleum consumption between 1980 and 1981. (See Exhibit 3.)

**Motor Gasoline.** Motor gasoline supplied for domestic use averaged 6.6 million barrels per day in 1981, down 11 percent from 1978, the year gasoline consumption peaked. Since the Federal Highway Administration estimates that 1981 vehicle miles traveled are about the same as in 1978, increased vehicle fuel efficiency appears to be an important factor in the decline in gasoline consumption. The average passenger car efficiency reached 15.2 miles per gallon of fuel in 1980, a significant increase from the 14.3 miles per gallon recorded in 1979. (Ref. 1) When data become available to estimate vehicle efficiency for 1981, they are expected to show further improvement.

Midyear average retail prices of all grades and services of motor gasoline increased to 136 cents per gallon in 1981, up 11 cents (9 percent) from mid-1980, and up 71 cents (110 percent) from the equivalent price in midyear 1978. (Ref. 1)

**Distillate Fuel Oil.** Distillate fuel oil supplied for domestic use in 1981 decreased 139 thousand barrels per day (5 percent) from 1980, much less than the 11 percent decrease from 1979 to 1980.

Increases in the price of home heating oil continued to induce conservation and some conversions to natural gas and other alternate fuels. U.S. residential heating oil prices averaged 121 cents per gallon in mid-1981, up 23 cents (23 percent) from the previous year. (Ref. 1)

**Residual Fuel Oil.** While residual fuel oil ranked third in volume among the individual petroleum products consumed in 1981, the 446 thousand barrel per day (20 percent) decline in residual fuel oil use between 1980 and 1981 was the largest volume component of the decline in petroleum consumption.

The decline in residual fuel oil use was associated with ongoing reductions in demand for the product by its most important consumers, the electric-power utilities and large industrial users. This reduction in the quantity of residual fuel oil demanded resulted largely from its increasing price, especially relative to the prices of substitutable fuels, and from the increasing availability of natural gas for non-residential use. By late 1981, the prices of residual fuel oil delivered to electricity-generating plants were,

in cents per million British thermal units (Btu), approximately three times the cost of coal, and one and one-half times the cost of natural gas. Retail prices of residual fuel oil averaged \$31 per barrel in mid-1981, up \$7 (29 percent) from the previous year. (Ref. 1)

### Developments in Petroleum Supply:

The decline in U.S. petroleum consumption in 1981 was accompanied by stable domestic crude oil production, reduced domestic refinery operations, ample supplies of foreign petroleum, and a sharp decline in petroleum imports.

**Crude Oil.** U.S. crude oil production has been essentially constant over the 1979-1981 period at 8.6 million barrels per day. Largely as a result of phased Federal decontrol of the price of crude oil beginning in April 1979, both exploratory and developmental drilling have increased dramatically over the last 3 years. This increase halted an annual decline in production in the lower 48 states that averaged 300 thousand barrels per day through the middle 1970s. In addition to increased drilling, the success ratio (i.e. the number of successful wells drilled as a percent of all wells drilled) increased slightly during this period. This resulted primarily from the increased drilling of development wells, including more intensive drilling of old fields.

### Drilling Activity

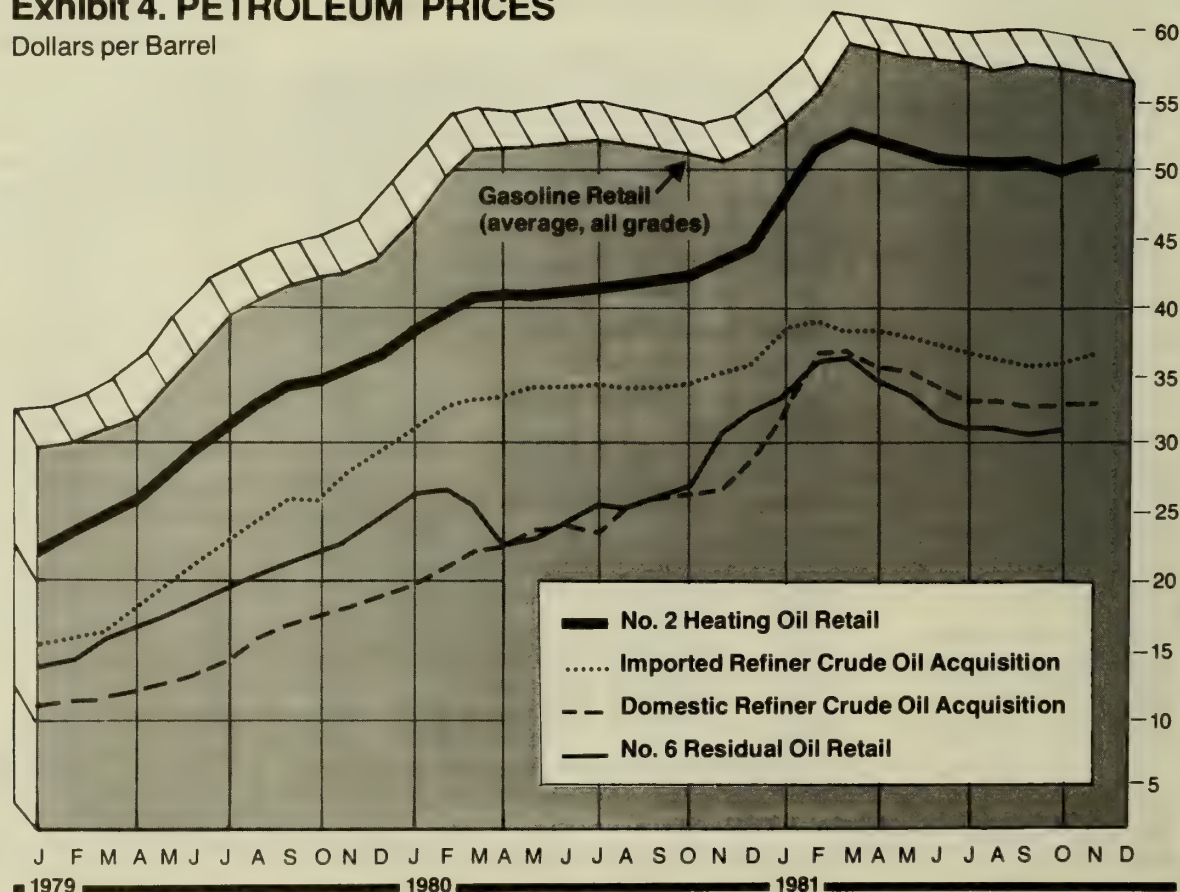
	1979	1980	1981
Average Number of Rigs Operating	2,177	2,909	3,970
Total Wells Drilled	49,816	60,845	78,454
Exploratory Wells	10,484	11,916	NA
Development Wells	39,332	48,929	NA
Oil Wells	19,383	27,026	37,639
Gas Wells	14,681	15,730	17,870
Dry Holes	15,752	18,089	22,945
Average Depth per Well (feet)	4,791	4,675	4,582

Sources: *Monthly Energy Review*  
A.A.P.G. Bulletin

**Refinery Operations.** The utilization of total operable refinery capacity dropped from 85 percent in 1979 to 68 percent in 1981, associated with a 15 percent decline in crude oil input to refineries. According to preliminary EIA figures, the proportion of operable capacity that

## Exhibit 4. PETROLEUM PRICES

Dollars per Barrel

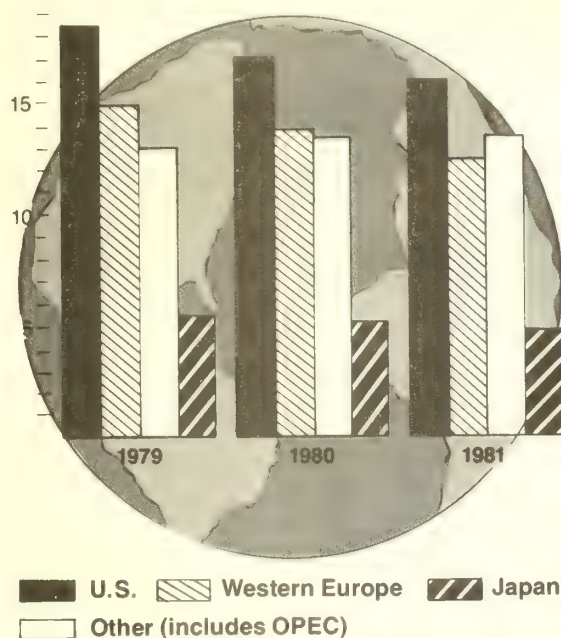


Source: *Monthly Energy Review*

was idle increased from 4 percent (0.8 million barrels per day) in January 1981 to 9 percent (1.6 million barrels per day) in December 1981, averaging about 7 percent for the year. This decline in refinery utilization responds to the

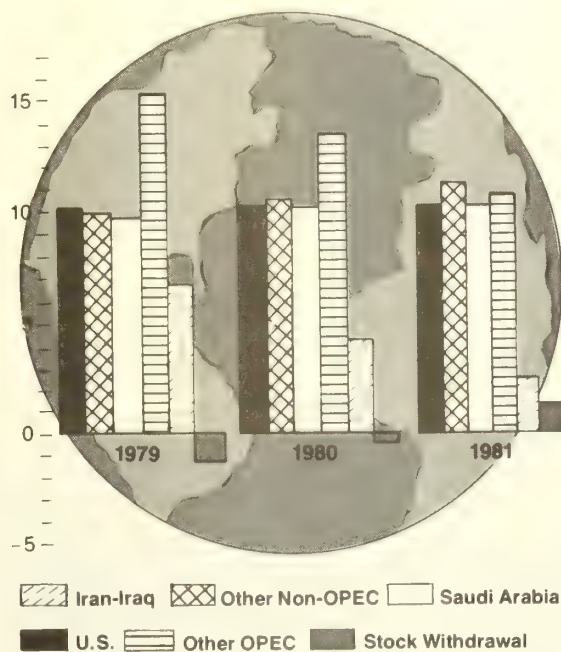
### Exhibit 5. WOCA<sup>1</sup> PETROLEUM CONSUMPTION

Million Barrels per Day



### WOCA<sup>1</sup> PETROLEUM PRODUCTION AND STOCK WITHDRAWAL

Million Barrels per Day



declining demand for petroleum products discussed earlier.

The full decontrol of domestic crude oil prices in January 1981 permitted the refiner acquisition cost of crude oil to rise almost to the cost of imported crude. (See Exhibit 4.) Petroleum product prices rose through March 1981. Since March, however, the slack demand for petroleum products put downward pressure on all prices.

**Stocks.** By the end of 1981, domestic petroleum stocks, excluding the Strategic Petroleum Reserve (SPR), were 1.3 billion barrels, 4 percent less than at the end of 1980. Both crude oil stocks and petroleum product stocks decreased. When the SPR stocks are included, however, total domestic stocks show a 4 percent increase to 1.5 billion barrels.

The most significant change in domestic petroleum stocks was the large growth in SPR stocks in 1981. These stocks grew to 230 million barrels, more than twice the 1980 levels. The growth in SPR stocks of 336 thousand barrels per day countered the stock drawdown of 162 thousand barrels per day of private petroleum stocks. The 1981 ending stock level at the SPR represented about 56 days of non-SPR crude oil imports at the 1981 rate, up from 21 days at the end of 1980.

**International Petroleum Supplies.** In 1981, there were ample worldwide supplies of petroleum at the prevailing prices. The principal reasons were (a) a marked worldwide reduction in consumption, (b) a high rate of petroleum production by several countries, and (c) a large stock drawdown that occurred in most of the free world, with the notable exception of the United States.

(a) Total petroleum consumption in the world outside Communist areas (WOCA) declined from 52 million barrels per day in 1979 to an estimated 47 million barrels per day in 1981, a reduction of about 10 percent. (See Exhibit 5.) There were many reasons for this decline, principal among these being large price increases since 1978 and a sluggish world economy. In 1979, the price of foreign crude oil nearly doubled, from approximately \$15 per barrel in December 1978, to approximately \$29 in December 1979.

(b) A major contributor to the ample worldwide supply of petroleum in 1981 was the high level of crude oil production by the United States, other non-OPEC countries, and Saudi Arabia. (See Exhibit 5.) In the face of a worldwide reduction in petroleum consumption, the non-OPEC countries increased production substantially.

(c) As noted earlier, in 1981 the U.S. had a net increase in total petroleum stocks of 173 thou-

sand barrels per day because of the 336 thousand barrels per day increase in SPR stocks. This contrasts with the estimated stock drawdown of 1 million barrels per day by the rest of the WOCA. The WOCA stock drawdown reduced the need for crude oil production in 1981. The drawdown was associated with high interest rates, which increased the cost of holding stocks.

**Imports.** Despite the ample worldwide supplies of petroleum, net U.S. petroleum imports averaged 5.4 million barrels per day in 1981, down 33 percent from 1979. Of this amount, net crude oil imports averaged 4.2 million barrels per day in 1981, down 34 percent. Net imports of petroleum products averaged 1.2 million barrels per day in 1981, down 29 percent. All of the declines in product imports occurred in residual fuel oil, distillate fuel oil, and motor gasoline.

#### Conclusion

In 1981, the United States reduced its consumption of petroleum by over one million barrels per day. This was the third consecutive year that U.S. consumption dropped. Due to stable U.S. petroleum production and stocks, the drop in consumption resulted in a matching drop in imports.

Among the reasons for the reduced petroleum consumption were the continued effects of repeated large increases in petroleum prices and a sluggish economy. The effects of petroleum price increases included improvements in the fuel efficiencies of petroleum-consuming equipment, consumer switching to less expensive alternative fuels, and petroleum conservation in general. The 1981 drop in consumption was greatest in motor gasoline and residual fuel oil. The reduction in petroleum consumption was large enough that the ratio of petroleum consumption to the Gross National Product (in constant dollars) continued its decline. The drop in petroleum consumption also resulted in a large drop in U.S. refinery capacity utilization.

Domestic crude oil production remained constant for the third consecutive year largely because of greatly increased drilling by the petroleum industry, responding to the phased decontrol of crude oil prices.

Domestic petroleum stocks grew slightly in 1981 because of the doubling of the SPR. The growth of SPR stocks was greater than the drawdown of other petroleum stocks.

International supplies of petroleum were ample in 1981. Nevertheless, because of reduced petroleum consumption in the United States, U.S. imports of crude oil and petroleum products dropped dramatically below the levels of 1979 and 1980.

1981 was a year during which additions to the SPR improved our ability to respond to petro-

leum supply disruptions. Moreover, reduced domestic consumption and stable domestic production enabled us further to reduce our dependence on imported petroleum.

#### References

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5. Federal Highway Administration, U.S. Department of Transportation. *Traffic Volume Trends*, Washington, D.C., December 1981.
6. American Association of Petroleum Geologists, *A.A.P.G. Bulletin*, Tulsa, Oklahoma, October 1981.

## Summary Statistics



# Crude Oil<sup>1</sup> and Petroleum Products Overview

		Field Production			Stock Withdrawal <sup>2</sup>			Ending Stocks <sup>3</sup>
		Total Domestic <sup>4</sup>	Crude Oil	Natural Gas Plant Production	Crude Oil <sup>5</sup>	Petroleum Products	Petroleum Products Supplied	Crude Oil <sup>5</sup> and Petroleum Products
Thousand Barrels per Day								Millions of Barrels
1973	AVERAGE	10,975	9,208	1,738	11	-146	17,308	1,008
1974	AVERAGE	10,498	8,774	1,688	-62	-117	16,653	1,074
1975	AVERAGE	10,045	8,375	1,633	-17	-145	16,322	1,133
1976	AVERAGE	9,774	8,132	1,603	-39	96	17,461	1,112
1977	AVERAGE	9,913	8,245	1,618	-170	-378	18,431	1,312
1978	AVERAGE	10,328	8,707	1,567	-78	172	18,847	1,278
1979	AVERAGE	10,179	8,552	1,584	-148	-25	18,513	1,341
1980	January	10,377	8,675	1,648	-594	270	18,851	1,351
	February	10,402	8,705	1,656	-292	563	18,817	1,343
	March	10,303	8,698	1,568	-47	-99	17,377	1,348
	April	10,356	8,685	1,630	-412	-229	16,784	1,367
	May	10,298	8,635	1,615	-117	-520	16,238	1,387
	June	10,164	8,554	1,561	65	-869	16,187	1,411
	July	10,113	8,547	1,524	88	-556	16,008	1,425
	August	9,974	8,414	1,519	-274	-473	15,753	1,449
	September	10,184	8,619	1,515	307	-259	16,598	1,447
	October	10,092	8,532	1,516	-191	756	16,995	1,430
	November	10,109	8,495	1,571	-8	-84	16,702	1,432
	December	10,204	8,606	1,560	304	993	18,410	1,392
	AVERAGE	10,214	8,597	1,573	-98	-42	17,056	
1981	January	10,168	8,533	1,595	-192	1,139	18,288	1,396
	February	10,250	8,598	1,615	-318	258	16,930	1,398
	March	10,217	8,601	1,581	-490	235	15,838	1,405
	April	10,133	8,543	1,551	-777	180	15,280	1,423
	May	10,115	8,496	1,554	-354	-405	15,196	1,447
	June	10,260	8,616	1,579	-98	396	15,996	1,438
	July	10,021	8,422	1,547	-334	147	15,713	1,444
	August	10,202	8,574	1,582	508	-977	15,236	1,458
	September	10,293	8,598	1,630	-359	-385	15,619	1,481
	October	10,212	8,547	1,601	-761	516	15,840	1,488
	November	10,264	8,595	1,615	-352	-245	15,508	1,506
	December	10,274	8,624	1,605	-130	698	16,602	1,489
	AVERAGE	10,200	8,562	1,588	-304	130	R16,001	
1982	January*	10,257	8,669	1,548	-236	1,129	15,890	1,461
	February**	NA	8,706	NA	-12	1,435	15,960	1,431

<sup>1</sup> Includes lease condensate.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>3</sup> Ending stocks for 1973-1979 are totals as of December 31.

<sup>4</sup> Includes crude oil, natural gas plant production, other hydrocarbons and alcohol.

<sup>5</sup> Includes stocks located in the Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available.

R Figures for 1981 product supplied are corrected from Table 3a of the December 1981 Monthly Petroleum Statement.

\* See Explanatory Note 5.1.

\*\* Preliminary statistics. See Explanatory Note 2.7.

Note: Beginning in January 1975, the Bureau of Mines, Dept. of Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Crude Oil<sup>1</sup> and Petroleum Products Overview ( continued )

		Imports <sup>2</sup>			Exports <sup>3</sup>				
		Total	Crude Oil <sup>4</sup>	Petroleum Products	Total	Crude Oil	Petroleum Products		Net <sup>5</sup> Imports
Thousand Barrels per Day									
1973	AVERAGE	6,256	3,244	3,012	231	2	229	6,025	
1974	AVERAGE	6,112	3,477	2,635	221	3	218	5,892	
1975	AVERAGE	6,056	4,105	1,951	209	6	204	5,846	
1976	AVERAGE	7,313	5,287	2,026	223	8	215	7,090	
1977	AVERAGE	8,807	6,615	2,193	243	50	193	8,565	
1978	AVERAGE	8,363	6,356	2,008	362	158	204	8,002	
1979	AVERAGE	8,456	6,519	1,937	471	235	236	7,985	
1980	January	8,598	6,406	2,192	550	322	228	8,048	
	February	7,945	6,013	1,931	558	332	227	7,386	
	March	7,452	5,695	1,757	573	330	243	6,879	
	April	7,106	5,598	1,508	434	192	241	6,672	
	May	6,579	5,106	1,472	591	326	266	5,987	
	June	6,894	5,480	1,414	654	365	289	6,240	
	July	6,257	4,843	1,414	531	238	293	5,727	
	August	6,192	4,803	1,389	319	78	241	5,873	
	September	6,239	4,707	1,532	557	322	235	5,682	
	October	6,379	4,768	1,611	598	309	288	5,781	
	November	6,408	4,680	1,728	549	289	260	5,859	
	December	6,894	5,082	1,812	622	343	279	6,272	
		AVERAGE	6,909	5,263	1,646	544	287	258	6,365
1981	January	6,814	4,923	1,892	558	339	219	6,257	
	February	6,777	4,873	1,904	569	198	371	6,208	
	March	6,026	4,521	1,505	586	210	376	5,440	
	April	5,767	4,457	1,310	570	198	372	5,198	
	May	5,702	4,267	1,436	595	312	283	5,107	
	June	5,422	4,084	1,338	420	123	297	5,002	
	July	5,809	4,336	1,473	571	257	314	5,238	
	August	5,737	4,165	1,572	644	204	440	5,093	
	September	6,326	4,714	1,612	519	194	325	5,807	
	October	5,939	4,382	1,557	738	226	512	5,202	
	November	5,610	3,992	1,619	701	278	423	4,909	
	December	5,896	4,189	1,707	656	189	467	5,240	
		AVERAGE	R 5,981	4,406	R 1,576	595	228	367	5,387
1982	January*	5,232	3,648	1,585	829	238	591	4,404	
	February**	4,564	2,988	1,576	NA	NA	NA	NA	

<sup>1</sup> Includes lease condensate.

<sup>2</sup> Includes shipments from United States possessions and territories.

<sup>3</sup> Includes shipments to United States possessions and territories.

<sup>4</sup> Includes crude oil for storage in the Strategic Petroleum Reserve.

<sup>5</sup> Net Imports = Imports minus Exports.

Totals may not equal sum of components due to independent rounding.

NA = Not available.

R Figures for 1981 petroleum product imports are corrected from Table 3a of the December 1981 Monthly Petroleum Statement.

\* See Explanatory Note 5.1.

\*\* Preliminary Statistics. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# **Petroleum Overview, Annual** Thousand Barrels per Day

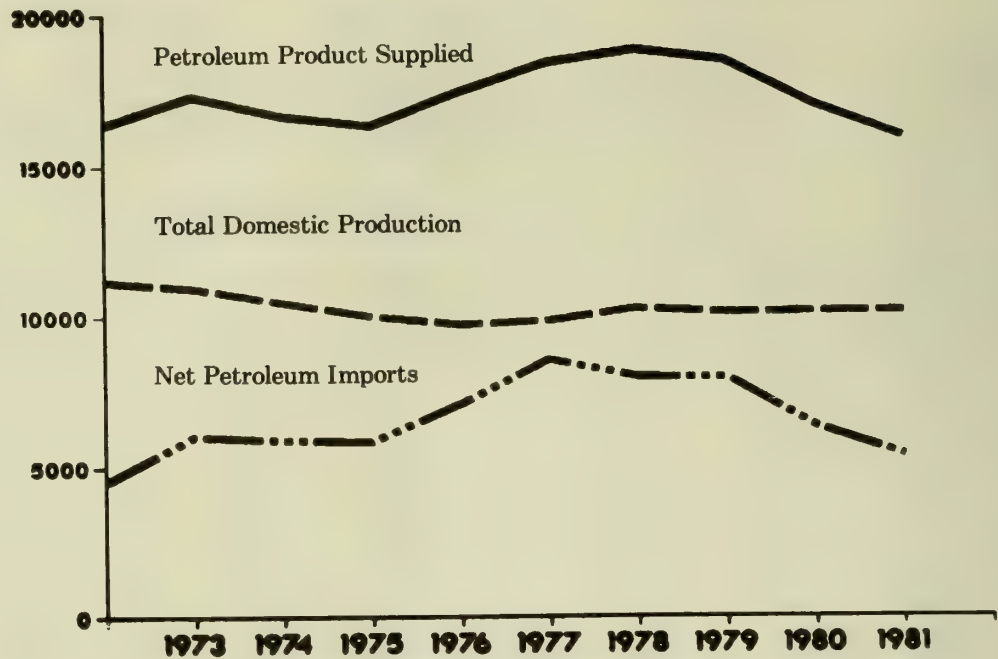
## **Legend**

Petroleum Products Supplied  
Total Domestic Production<sup>1</sup>  
Net Petroleum Imports<sup>2</sup>

<sup>1</sup>Includes crude oil and natural gas plant production.

<sup>2</sup>Includes SPR imports.

Source table: Crude Oil and Petroleum Products Overview.

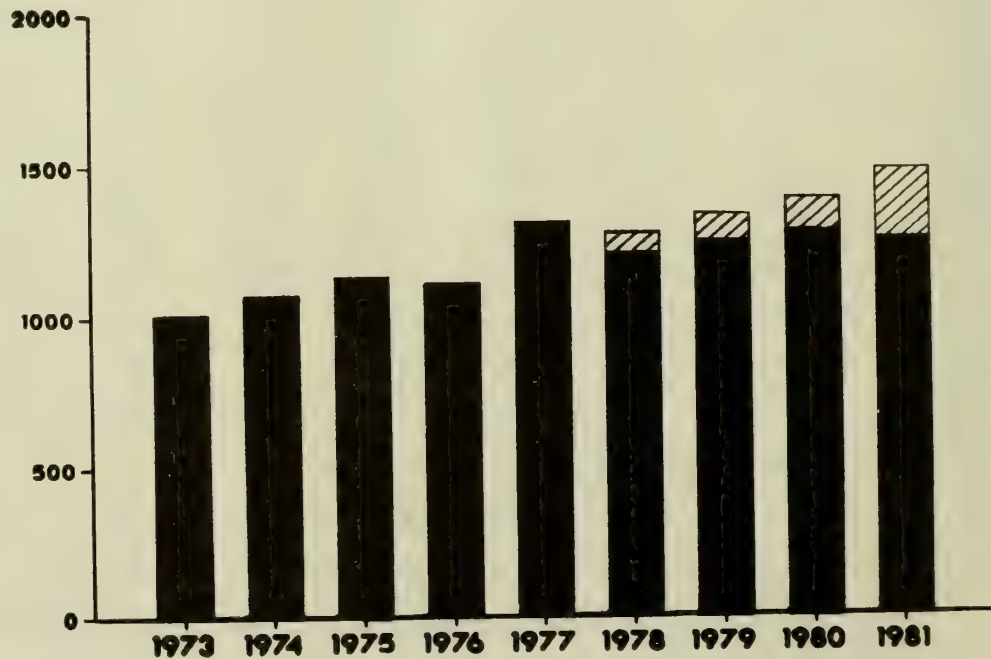


# **Crude Oil and Petroleum Products Ending Stocks, Annual** Millions of Barrels

## **Legend**

SPR Crude Oil  
Crude Oil and Petroleum Products, Excluding SPR

Source table: Crude Oil and Petroleum Products Overview.



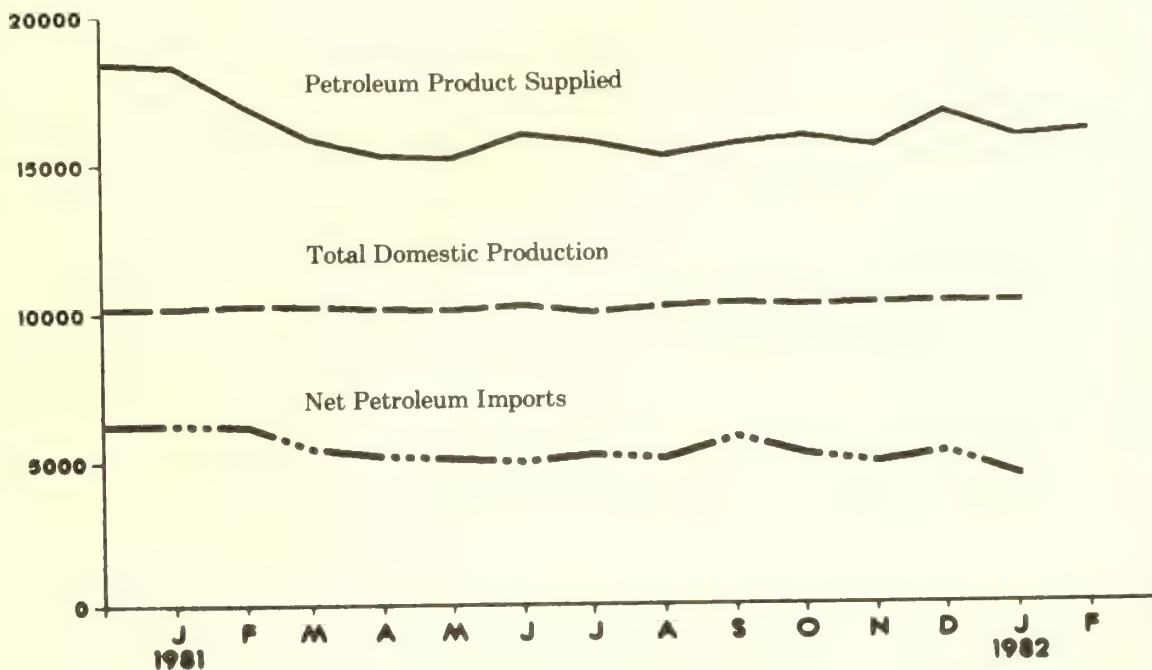
# **Petroleum Overview, Monthly** Thousand Barrels per Day

## **Legend**

Petroleum Products Supplied

Total Domestic Production<sup>1</sup>

Net Petroleum Imports<sup>2</sup>



<sup>1</sup> Includes crude oil and natural gas plant production.

<sup>2</sup> Includes SPR imports.

Source table: Crude Oil and Petroleum Products Overview.

# **Crude Oil and Petroleum Product Ending Stocks, Monthly** Millions of Barrels

## **Legend**

SPR Crude Oil

Crude Oil and Petroleum Products, Excluding SPR

Average Stock Range<sup>1</sup>



<sup>1</sup> Average stock range (excluding SPR) based on three years of data. See Explanatory Note 2.5.

Source table: Crude Oil and Petroleum Products Overview.

# Crude Oil<sup>1</sup> Supply and Disposition

		Supply						
		Field Production		Imports <sup>2</sup>			Stock Withdrawal <sup>3</sup>	
		Total Domestic	Alaskan	Total	SPR <sup>4</sup>	Other	SPR <sup>4</sup>	Other
		Thousand Barrels per Day						
1973	AVERAGE	9,208	198	3,244		3,244		11
1974	AVERAGE	8,774	193	3,477		3,477		-62
1975	AVERAGE	8,375	191	4,105		4,105		-17
1976	AVERAGE	8,132	173	5,287		5,287		-39
1977	AVERAGE	8,245	464	6,615	21	6,594	-20	-150
1978	AVERAGE	8,707	1,229	6,356	162	6,195	-163	84
1979	AVERAGE	8,552	1,401	6,519	67	6,452	-67	-81
1980	January	8,675	1,634	6,406	0	6,406	0	-594
	February	8,705	1,630	6,013	0	6,013	0	-292
	March	8,698	1,647	5,695	0	5,695	0	-47
	April	8,685	1,649	5,598	0	5,598	0	-412
	May	8,635	1,627	5,106	0	5,106	0	-117
	June	8,554	1,626	5,480	0	5,480	0	65
	July	8,547	1,612	4,843	0	4,843	0	88
	August	8,414	1,612	4,803	0	4,803	0	-274
	September	8,619	1,610	4,707	54	4,653	-54	361
	October	8,532	1,588	4,768	131	4,637	-123	-68
	November	8,495	1,561	4,680	142	4,538	-189	181
	December	8,606	1,602	5,082	198	4,884	-177	481
	AVERAGE	8,597	1,617	5,263	44	5,219	-45	-52
1981	January	8,533	1,606	4,923	106	4,817	-151	-41
	February	8,598	1,619	4,873	80	4,793	-127	-191
	March	8,601	1,618	4,521	140	4,382	-155	-335
	April	8,543	1,608	4,457	272	4,185	-444	-333
	May	8,496	1,580	4,267	386	3,881	-513	158
	June	8,616	1,632	4,084	318	3,766	-434	335
	July	8,422	1,605	4,336	175	4,161	-324	-10
	August	8,574	1,602	4,165	257	3,908	-372	880
	September	8,598	1,607	4,714	435	4,279	-486	126
	October	8,547	1,596	4,382	453	3,929	-501	-260
	November	8,595	1,618	3,992	271	3,720	-259	-93
	December	8,624	1,630	4,189	165	4,024	-252	122
	AVERAGE	8,562	1,610	4,406	256	4,150	-336	32
1982	January*	8,669	1,712	3,648	170	3,478	-159	-77
	February**	8,706	1,717	2,988	176	2,813	-205	193

<sup>1</sup> Includes lease condensate.

<sup>2</sup> Includes shipments from United States possessions and territories.

<sup>3</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>4</sup> Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

\* See Explanatory Note 5.2.

\*\* Preliminary statistics. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Crude Oil<sup>1</sup> Supply and Disposition ( continued )

		Supply (Continued)		Disposition		Ending Stocks <sup>2</sup>		
		Unac- counted for Crude Oil	Crude Used Directly and Losses	Refinery Inputs	Exports <sup>3</sup>	Total Crude Oil	SPR <sup>4</sup>	Other Primary
		Thousand Barrels per Day				Millions of Barrels		
1973	AVERAGE	3	-32	12,431	2	242		242
1974	AVERAGE	-25	-28	12,133	3	265		265
1975	AVERAGE	17	-30	12,442	6	271		271
1976	AVERAGE	77	-33	13,416	8	285		285
1977	AVERAGE	-6	-30	14,602	50	348	7	340
1978	AVERAGE	-57	-30	14,739	158	376	67	309
1979	AVERAGE	-11	-29	14,648	235	430	91	339
1980	January	166	-31	14,301	322	449	91	358
	February	124	-31	14,187	332	457	91	366
	March	-278	-30	13,709	330	459	91	367
	April	-165	-29	13,484	192	471	91	380
	May	55	-28	13,326	326	475	91	383
	June	1	-30	13,705	365	473	91	381
	July	52	-29	13,264	238	470	91	379
	August	147	-28	12,984	78	478	91	387
	September	27	-26	13,313	322	469	93	376
	October	-3	-25	12,772	309	475	97	379
	November	266	-26	13,119	289	475	102	373
	December	24	-26	13,648	343	466	108	358
	AVERAGE	34	-28	13,481	287			
1981	January	352	-28	13,248	339	494	112	381
	February	-29	-23	12,903	198	503	116	387
	March	-10	-29	12,383	210	518	121	397
	April	92	-27	12,090	198	541	134	407
	May	241	-28	12,309	312	552	150	402
	June	-33	-30	12,415	123	555	163	392
	July	162	-62	12,267	257	566	173	393
	August	-71	-61	12,911	204	550	185	365
	September	-184	-65	12,510	194	561	199	361
	October	190	-67	12,065	226	584	215	369
	November	371	-68	12,260	278	595	223	372
	December	-45	-67	12,383	189	599	230	369
	AVERAGE	88	-46	12,477	228			
1982	January*	-138	-66	11,638	238	606	235	371
	February**	NA	NA	11,324	NA	624	241	383

<sup>1</sup> Includes lease condensate.

<sup>2</sup> Ending stocks for 1973-1979 are totals as of December 31.

<sup>3</sup> Includes shipments to United States possessions and territories.

<sup>4</sup> Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available.

\* See Explanatory Note 5.2.

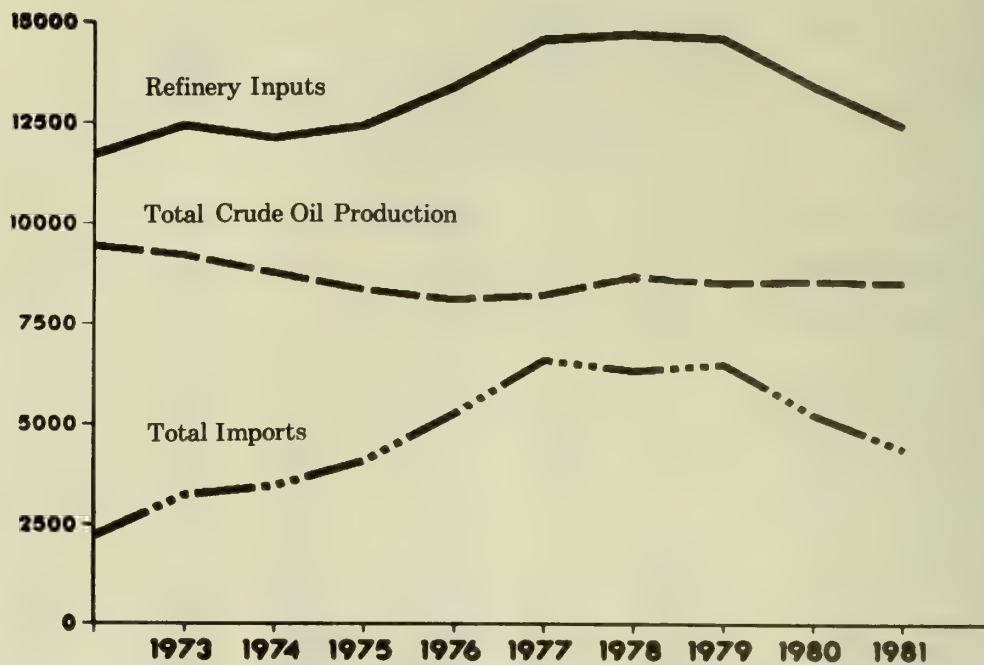
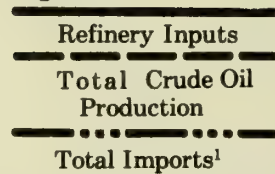
\*\* Preliminary statistics. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

### Crude Oil Supply and Disposition, Annual Thousand Barrels per Day

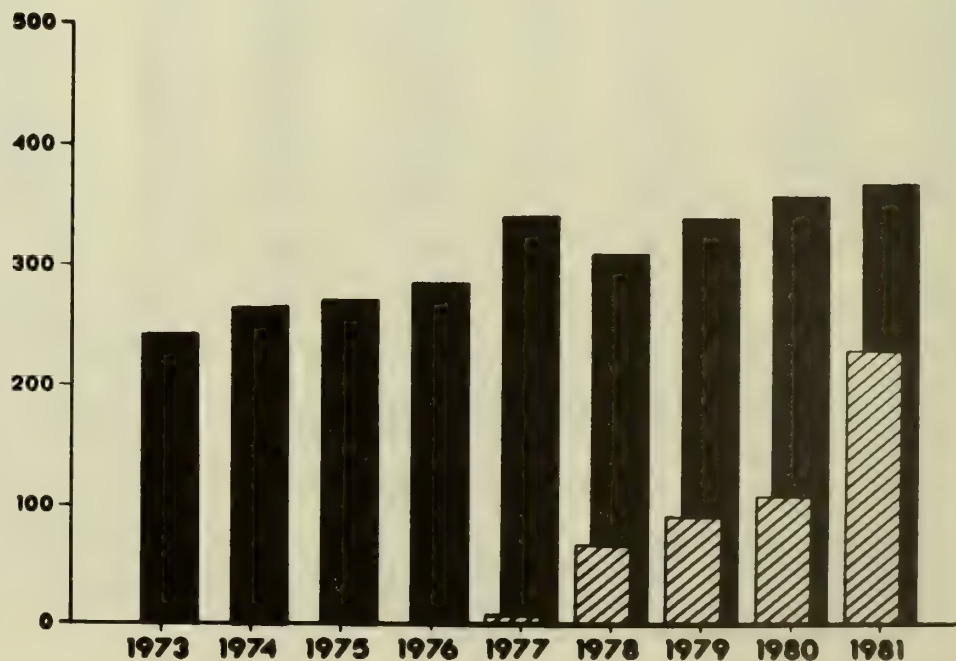
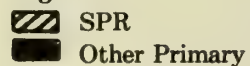
#### Legend



<sup>1</sup> Includes SPR imports.  
Source table: Crude Oil Supply and Disposition

### Crude Oil Ending Stocks, Annual Millions of Barrels

#### Legend



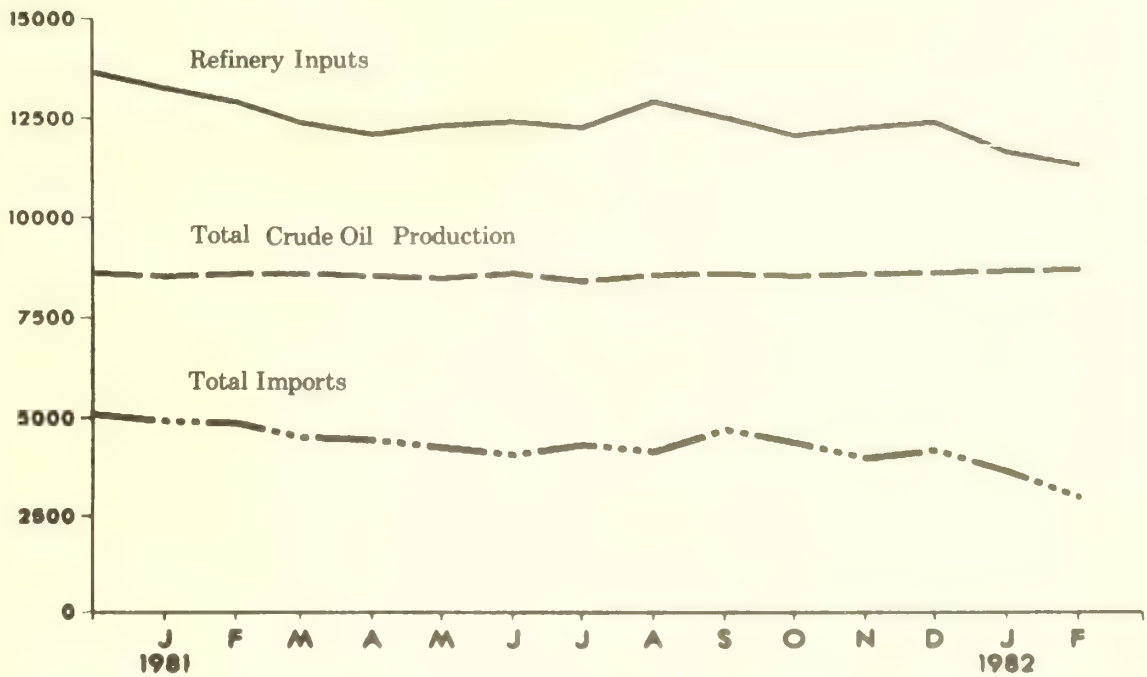
Source table: Crude Oil Supply and Disposition.

# Crude Oil Supply and Disposition, Monthly

Thousand Barrels per Day

## Legend

- Refinery Inputs
- Total Crude Oil Production
- Total Imports<sup>1</sup>



<sup>1</sup>Includes SPR imports.  
Source table: Crude Oil Supply and Disposition

# Crude Oil Ending Stocks, Monthly

Millions of Barrels

## Legend

- SPR
- Other Primary
- Average Stock Range<sup>1</sup>



<sup>1</sup>Average stock range (excluding SPR) based on three years of data. See Explanatory Note 2.5.

Source table: Crude Oil Supply and Disposition.

# Finished Motor Gasoline Supply and Disposition

		Supply			Disposition				Ending Stocks <sup>1</sup>	
		Total Produc- tion	Imports <sup>2</sup>	Stock With- drawal <sup>2 3</sup>	Exports	Product Supplied			Total Motor Gasoline <sup>5</sup>	Finished Motor Gasoline
						Total	Unleaded <sup>4</sup>	Unleaded		
Thousand Barrels per Day							Percent of Total	Millions of Barrels		
1973	AVERAGE	6,535	134	9	4	6,674	NA	NA	209	
1974	AVERAGE	6,360	204	-24	2	6,537	NA	NA	218	
1975	AVERAGE	6,520	184	-28	2	6,675	NA	NA	235	
1976	AVERAGE	6,841	131	10	3	6,978	NA	NA	231	
1977	AVERAGE	7,033	217	-72	2	7,177	1,976	27.5	258	
1978	AVERAGE	7,169	190	54	1	7,412	2,521	34.0	238	
1979	AVERAGE	6,852	181	2	(s)	7,034	2,798	39.8	237	
1980	January	6,991	141	-809	1	6,323	2,718	43.0	262	
	February	6,866	154	-423	(s)	6,596	2,969	45.0	275	
	March	6,519	155	-267	(s)	6,406	3,032	47.3	283	
	April	6,284	155	362	1	6,800	3,021	44.4	272	
	May	6,316	132	283	1	6,729	2,980	44.3	263	
	June	6,569	148	-59	1	6,657	3,099	46.6	265	
	July	6,465	149	-132	3	6,743	3,131	46.4	261	
	August	6,452	141	56	1	6,648	3,135	47.2	259	
	September	6,383	106	28	7	6,510	3,054	46.9	258	
	October	6,131	152	380	1	6,662	3,110	46.7	247	
	November	6,467	126	-359	(s)	6,234	3,123	50.1	257	
	December	6,644	121	-133	1	6,632	3,421	51.6	261	
		AVERAGE	6,506	140	-66	1	6,579	3,067	46.6	
1981	January	6,687	138	-435	(s)	6,389	3,115	48.8	277	227
	February	6,282	111	-100	1	6,293	3,103	49.3	284	230
	March	6,213	170	-81	(s)	6,303	3,097	49.1	285	232
	April	6,114	174	298	(s)	6,585	3,281	49.8	272	223
	May	6,121	146	341	1	6,608	3,119	47.2	258	213
	June	6,222	161	620	1	7,001	3,421	48.9	242	194
	July	6,417	118	282	(s)	6,817	3,420	50.2	227	185
	August	6,616	125	-93	3	6,645	3,346	50.4	233	188
	September	6,567	169	-74	2	6,660	3,337	50.1	237	191
	October	6,447	143	10	3	6,598	3,253	49.3	235	190
	November	6,583	145	-333	1	6,395	3,203	50.1	247	200
	December	6,621	196	-91	11	6,715	3,444	51.3	251	203
		AVERAGE	6,409	150	29	2	6,586	3,262	49.5	
1982	January*	6,181	114	-358	18	5,920	3,033	51.2	262	214
	February**	5,811	NA	NA	NA	6,057	NA	NA	254	NA

<sup>1</sup> Ending stocks for 1973-1979 are totals as of December 31.

<sup>2</sup> Beginning in 1981 excludes blending components.

<sup>3</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>4</sup> Includes gasohol.

<sup>5</sup> Includes motor gasoline blending components.

Totals may not equal sum of components due to independent rounding.

NA = Not available. (s) = Less than 500 barrels per day

\* See Explanatory Note 5.3.

\*\* Preliminary statistics. See Explanatory Note 2.7.

Notes: Beginning in January 1981, the Energy Information Administration modified survey forms, definitions, and processing procedures. See Explanatory Note 4 on Changes for the effects on motor gasoline statistics.

Beginning in January 1975, the Bureau of Mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks <sup>1</sup>
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Crude Used Directly	Exports	Product Supplied	
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	2,822	392	-115	2	9	3,092	196
1974	AVERAGE	2,669	289	-9	2	2	2,948	200
1975	AVERAGE	2,654	155	40	2	1	2,851	209
1976	AVERAGE	2,924	146	62	1	1	3,133	186
1977	AVERAGE	3,278	250	-176	1	1	3,352	250
1978	AVERAGE	3,167	173	93	1	3	3,432	216
1979	AVERAGE	3,153	193	-34	1	3	3,311	229
1980	January	3,014	179	526	1	7	3,714	212
	February	2,766	237	716	1	8	3,712	192
	March	2,558	193	445	1	19	3,179	178
	April	2,461	154	21	2	2	2,635	177
	May	2,474	126	-199	1	1	2,402	183
	June	2,647	108	-439	1	(s)	2,317	197
	July	2,690	117	-557	2	3	2,249	214
	August	2,462	77	-403	2	(s)	2,137	226
	September	2,686	101	-201	2	(s)	2,587	232
	October	2,590	115	215	1	(s)	2,920	226
	November	2,703	133	111	1	(s)	2,949	222
	December	2,891	166	556	1	(s)	3,615	205
	AVERAGE	2,662	142	64	1	3	2,866	
1981	January	2,988	273	818	11	(s)	4,090	180
	February	2,810	325	267	11	17	3,395	173
	March	2,484	144	254	9	(s)	2,891	165
	April	2,418	116	(s)	10	3	2,541	165
	May	2,454	165	-234	10	(s)	2,395	172
	June	2,502	201	-275	10	(s)	2,437	180
	July	2,403	179	-210	10	2	2,381	187
	August	2,656	159	-439	8	(s)	2,384	200
	September	2,611	129	-217	10	1	2,532	207
	October	2,490	117	182	9	5	2,792	201
	November	2,729	114	38	11	6	2,886	200
	December	2,862	95	317	11	26	3,258	190
	AVERAGE	2,616	167	42	10	5	2,830	
1982	January*	2,615	96	780	10	90	3,410	166
	February**	2,430	91	724	NA	NA	3,165	142

<sup>1</sup> Ending Stocks for 1973 - 1979 are totals as of December 31.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

Totals may not equal sum of components due to independent rounding.

(s) = Less than 500 barrels per day

\* See Explanatory Note 5.4.

\*\* Preliminary Statistics. See Explanatory Note 2.7.

NA = Not available.

Notes: Beginning in January 1981, the Energy Information Administration modified survey forms, definitions, and processing procedures. See Explanatory Note 4 on Changes for the effects on Distillate Fuel Oil statistics.

Beginning in January 1975, the Bureau of Mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# **Legend**

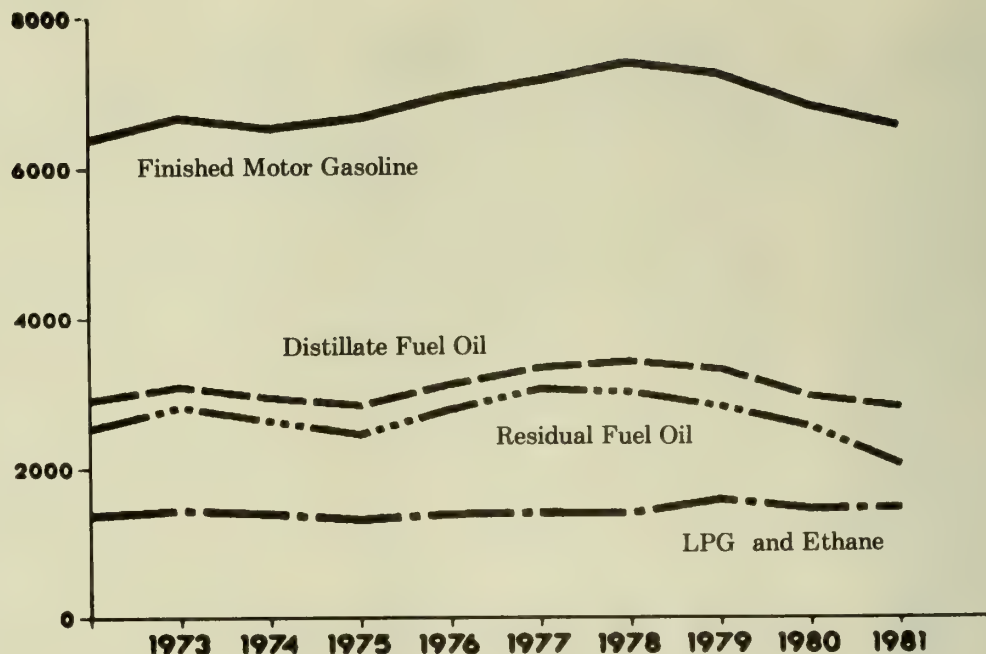
Finished Motor Gasoline <sup>1</sup>
Distillate Fuel Oil <sup>1</sup>
Residual Fuel Oil <sup>1</sup>
LPG <sup>2</sup> and Ethane

<sup>1</sup>Figures for 1979 and 1980 recast to account for data system changes in 1981. See Explanatory Note 4.

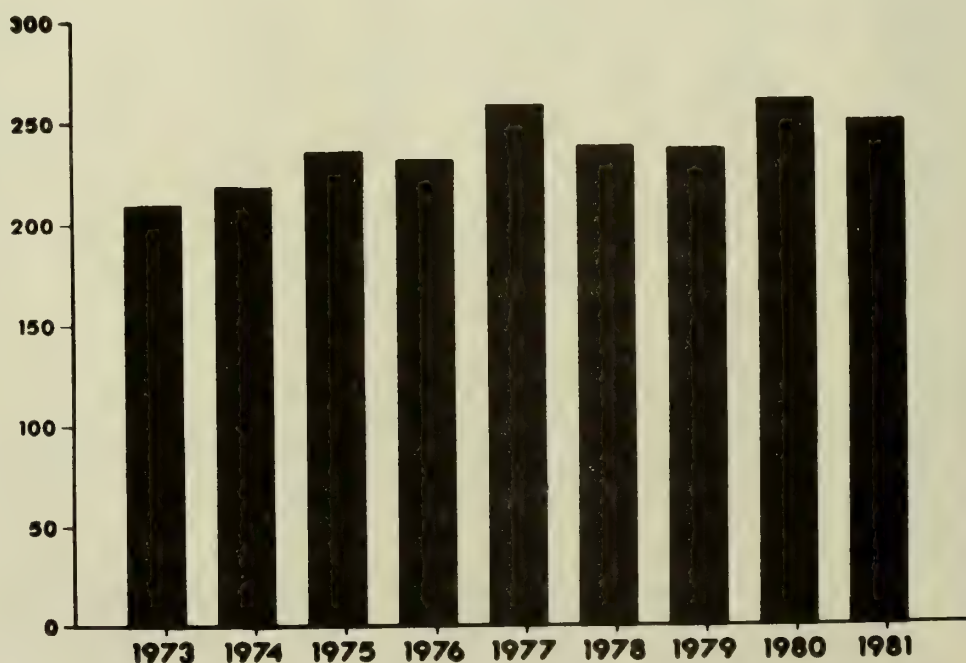
<sup>2</sup>Liquefied Petroleum Gases.

Source tables: Finished Motor Gasoline Supply and Disposition, Distillate Fuel Oil Supply and Disposition, Residual Fuel Oil Supply and Disposition, Liquefied Petroleum Gases and Ethane Supply and Disposition.

## **Products Supplied, Annual** Thousand Barrels per Day



## **Motor Gasoline<sup>1</sup> Ending Stocks, Annual** Millions of Barrels



<sup>1</sup>Includes finished motor gasoline blending components.

Source table: Finished Motor Gasoline Supply and Disposition.

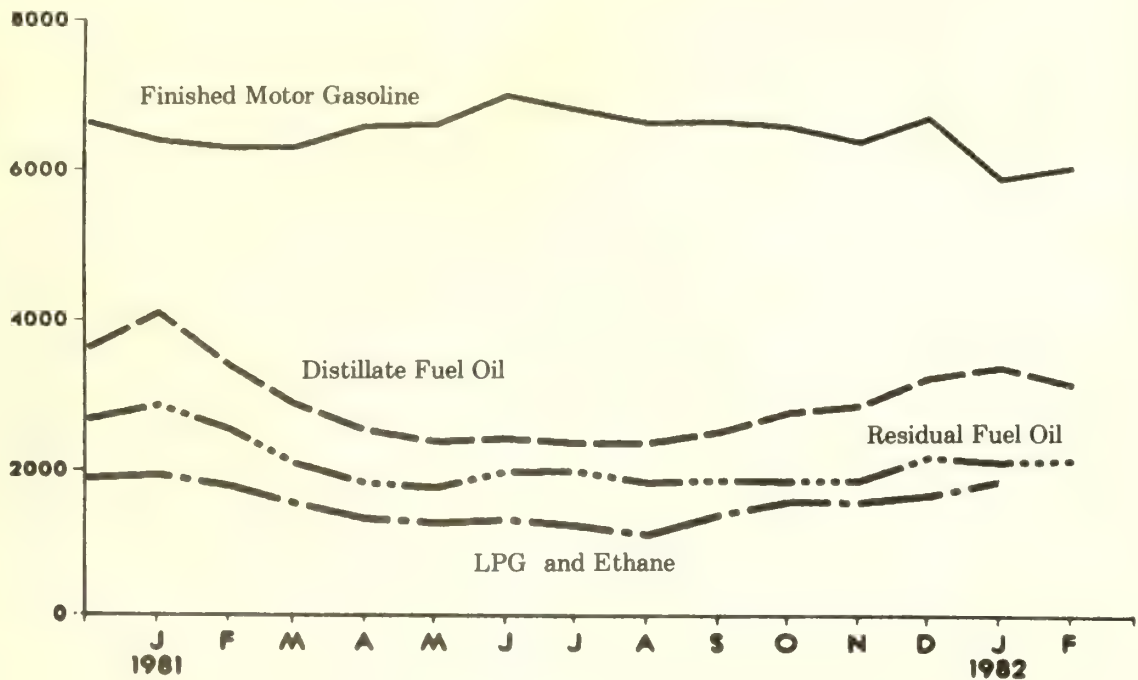
## Products Supplied, Monthly Thousand Barrels per Day

### Legend

- Finished Motor Gasoline
- Distillate Fuel Oil
- Residual Fuel Oil
- LPG<sup>1</sup> and Ethane

<sup>1</sup>Liquefied Petroleum Gases.

Source tables: Finished Motor Gasoline Supply and Disposition, Distillate Fuel Oil Supply and Disposition, Residual Fuel Oil Supply and Disposition, Liquefied Petroleum Gases and Ethane Supply and Disposition.



## Motor Gasoline Ending Stocks, Monthly Millions of Barrels

### Legend

- Total Motor Gasoline<sup>1</sup>
- Finished Motor Gasoline
- Average Stock Range<sup>2</sup>

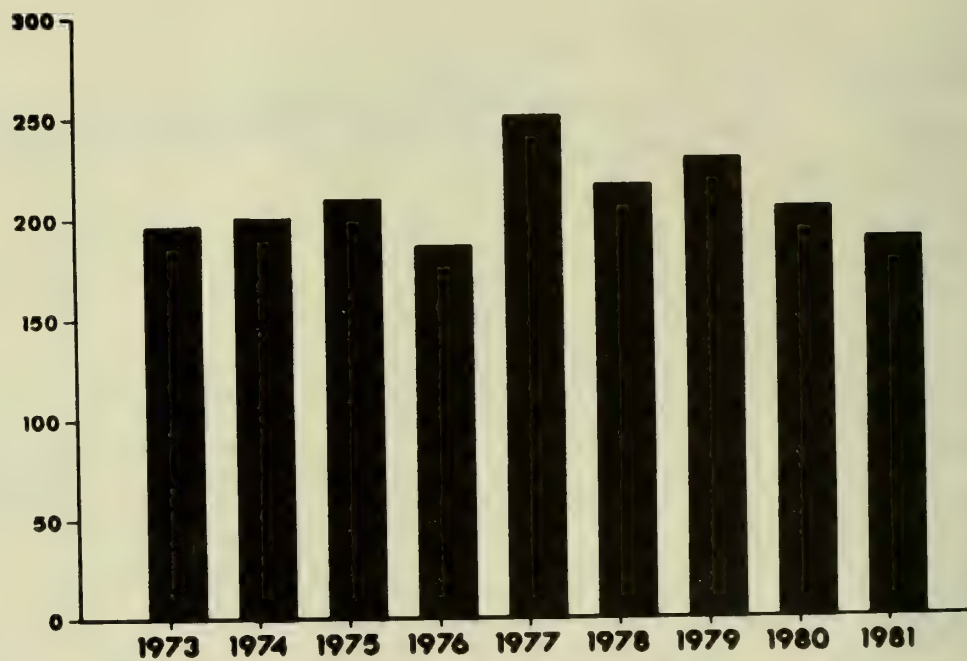
<sup>1</sup>Includes finished motor gasoline blending components.

<sup>2</sup>Average stock range for total motor gasoline based on three years of data. See Explanatory Note 2.5.

Source table: Finished Motor Gasoline Supply and Disposition.

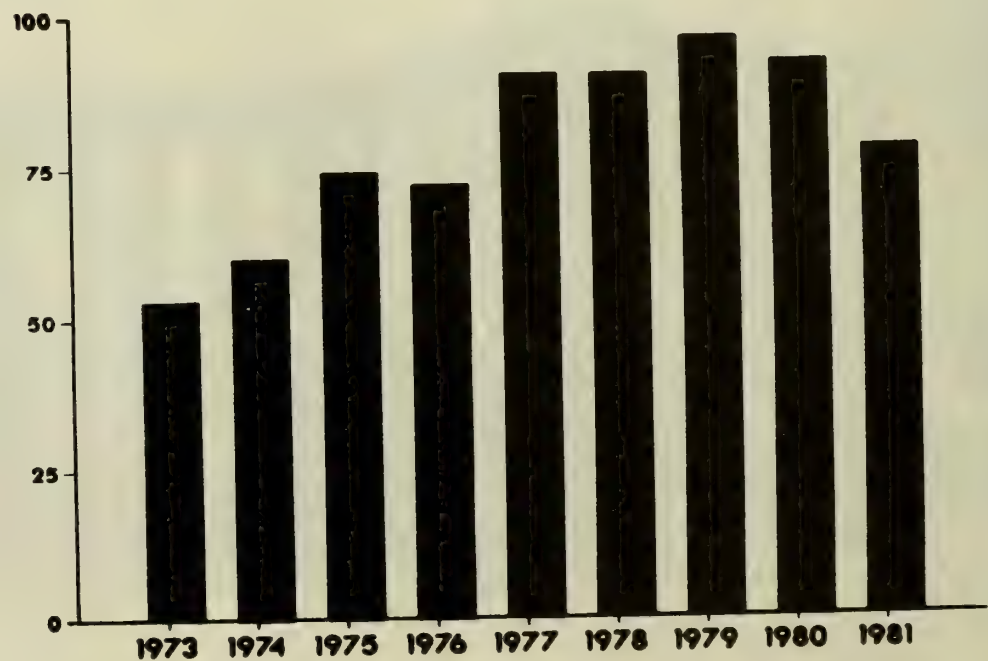


**Distillate Fuel Oil Ending Stocks, Annual**  
Millions of Barrels



Source table: Distillate Fuel Oil Supply and Disposition.

**Residual Fuel Oil Ending Stocks, Annual**  
Millions of Barrels



Source table: Residual Fuel Oil Supply and Disposition.

### Distillate Fuel Oil Ending Stocks, Monthly Millions of Barrels

#### Legend

■ Average Stock Range<sup>1</sup>



<sup>1</sup> Average stock range based on three years of data. See Explanatory Note 2.5.

Source table: Distillate Fuel Oil Supply and Disposition.

### Residual Fuel Oil Ending Stocks, Monthly Millions of Barrels

#### Legend

■ Average Stock Range<sup>1</sup>



<sup>1</sup> Average stock range based on three years of data. See Explanatory Note 2.5.

Source table: Residual Fuel Oil Supply and Disposition.

# Residual Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks <sup>1</sup>
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Crude Used Directly	Exports	Products Supplied	
		Thousand Barrels per Day						
								Millions of Barrels
1973	AVERAGE	971	1,853	5	17	23	2,822	53
1974	AVERAGE	1,070	1,587	-17	13	14	2,639	60
1975	AVERAGE	1,235	1,223	2	15	15	2,462	74
1976	AVERAGE	1,377	1,413	5	17	12	2,801	72
1977	AVERAGE	1,754	1,359	-48	13	6	3,071	90
1978	AVERAGE	1,667	1,355	-1	13	13	3,023	90
1979	AVERAGE	1,687	1,151	-15	12	9	2,826	96
1980	January	1,771	1,338	-51	14	5	3,067	97
	February	1,773	1,122	214	14	17	3,105	91
	March	1,584	976	87	14	2	2,658	88
	April	1,595	775	102	13	40	2,444	85
	May	1,509	812	-78	12	20	2,235	88
	June	1,575	749	-4	14	14	2,321	88
	July	1,480	787	71	13	60	2,291	86
	August	1,444	875	-43	13	2	2,286	87
	September	1,495	906	-31	10	21	2,359	88
	October	1,512	875	-100	9	70	2,227	91
	November	1,579	1,024	-74	10	88	2,451	93
	December	1,660	1,025	46	10	62	2,679	92
	AVERAGE	1,580	939	10	12	33	2,508	
1981	January	1,611	1,015	298	11	65	2,870	82
	February	1,565	956	144	9	125	2,549	78
	March	1,423	699	107	14	145	2,098	75
	April	1,320	584	63	14	151	1,829	73
	May	1,222	735	-177	14	25	1,769	79
	June	1,232	540	283	14	76	1,993	70
	July	1,174	830	26	48	82	1,995	69
	August	1,230	819	-179	48	69	1,849	75
	September	1,286	841	-174	51	126	1,878	80
	October	1,232	773	8	54	202	1,865	80
	November	1,218	844	-35	53	203	1,878	81
	December	1,295	920	80	52	157	2,191	78
	AVERAGE	1,316	796	36	32	118	2,062	
1982	January*	1,183	821	328	53	235	2,150	68
	February**	1,150	903	467	NA	NA	2,317	56

<sup>1</sup> Ending Stocks for 1973-1979 are totals as of December 31.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

Totals may not equal sum of components due to independent rounding.

\* See explanatory note 5.4.

\*\* Preliminary Statistics. See explanatory note 2.7.

NA = Not Available.

Notes: Beginning in January 1981, the Energy Information Administration modified survey forms definitions, and processing procedures. See explanatory note 4 on changes for the effects on residual fuel oil statistics. Beginning in January 1975, The Bureau of Mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic Coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Liquefied Petroleum Gases and Ethane Supply and Disposition

		Supply			Disposition			Ending Stocks <sup>1</sup>
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Refinery Inputs	Exports	Product Supplied	
Thousand Barrels per Day								Millions of Barrels
1973	AVERAGE	1,600	132	-35	220	27	1,449	99
1974	AVERAGE	1,565	123	-38	220	25	1,406	113
1975	AVERAGE	1,527	112	-35	246	26	1,333	125
1976	AVERAGE	1,535	130	24	260	25	1,404	116
1977	AVERAGE	1,566	161	-55	233	18	1,422	136
1978	AVERAGE	1,537	123	12	239	20	1,413	132
1979	AVERAGE	1,556	217	70	236	15	1,592	111
1980	January	1,560	264	461	291	30	1,963	96
	February	1,581	252	209	252	26	1,764	90
	March	1,519	214	7	211	23	1,506	90
	April	1,546	186	-339	171	19	1,203	100
	May	1,538	181	-224	182	17	1,295	107
	June	1,528	184	-319	170	18	1,205	117
	July	1,485	172	-283	209	18	1,147	126
	August	1,507	158	-296	203	17	1,149	135
	September	1,495	213	-80	228	19	1,382	137
	October	1,546	249	86	259	24	1,597	134
	November	1,549	231	82	304	23	1,535	132
	December	1,567	289	373	319	23	1,888	120
		AVERAGE	1,535	216	-27	233	21	1,469
1981	January	1,628	306	373	352	21	1,934	116
	February	1,614	327	166	303	21	1,783	112
	March	1,570	260	-3	257	20	1,550	112
	April	1,598	214	-218	231	26	1,338	118
	May	1,608	189	-273	220	19	1,285	127
	June	1,577	206	-194	235	24	1,330	133
	July	1,526	213	-253	215	17	1,253	141
	August	1,560	195	-241	235	149	1,129	148
	September	1,620	199	-107	287	21	1,404	151
	October	1,608	287	85	317	76	1,586	149
	November	1,667	280	74	382	58	1,581	146
	December	1,610	255	303	447	50	1,671	137
		AVERAGE	1,598	R 244	-25	290	42	R 1,485
1982	January*	1,546	314	480	398	67	1,873	122

<sup>1</sup> Ending Stocks for 1973 - 1979 are totals as of December 31.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

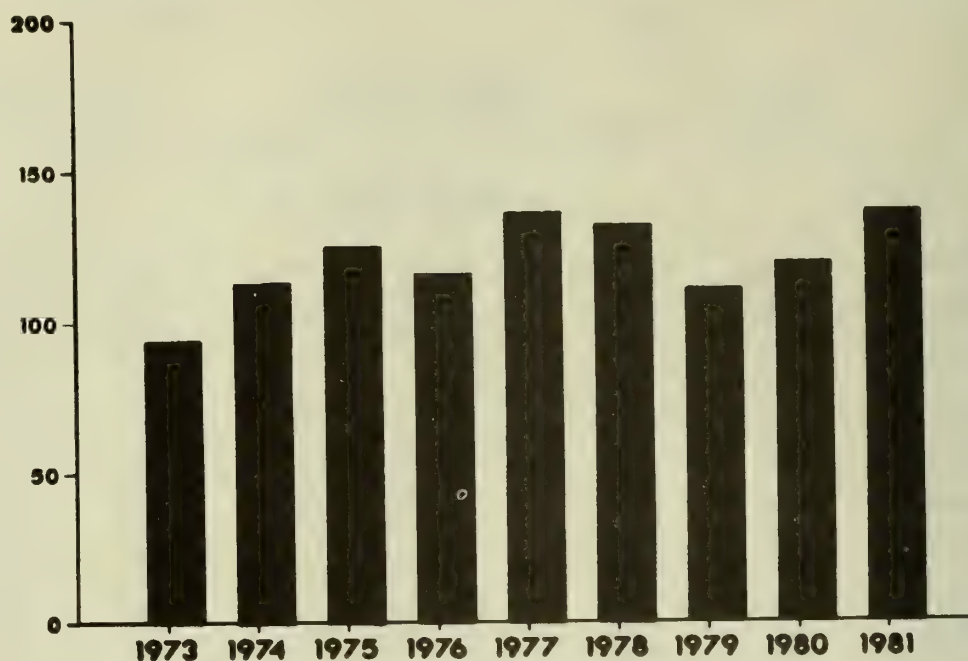
Totals may not equal sum of components due to independent rounding.

\* See Explanatory Note 5.5.

R Figures for 1981 imports and product supplied are corrected from Table 3a of the December 1981 Monthly Petroleum Statement. Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf excluding the Hawaiian Foreign Trade Zone.

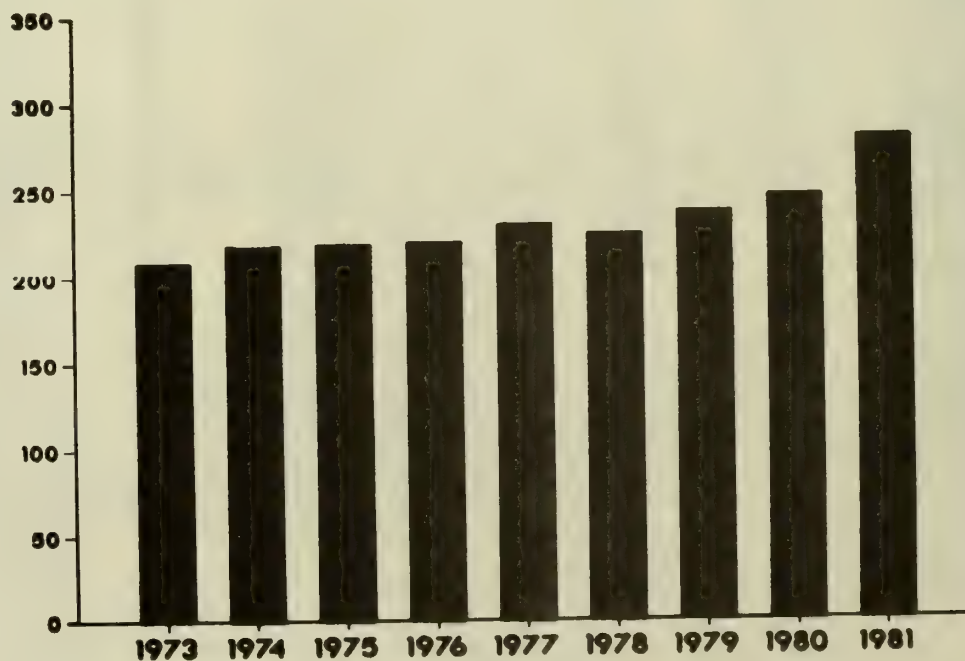
Sources: See "Sources" at the end of this section.

**Liquefied Petroleum Gases and Ethane Ending Stocks, Annual**  
Millions of Barrels



Source table: Liquefied Petroleum Gases and Ethane Supply and Disposition.

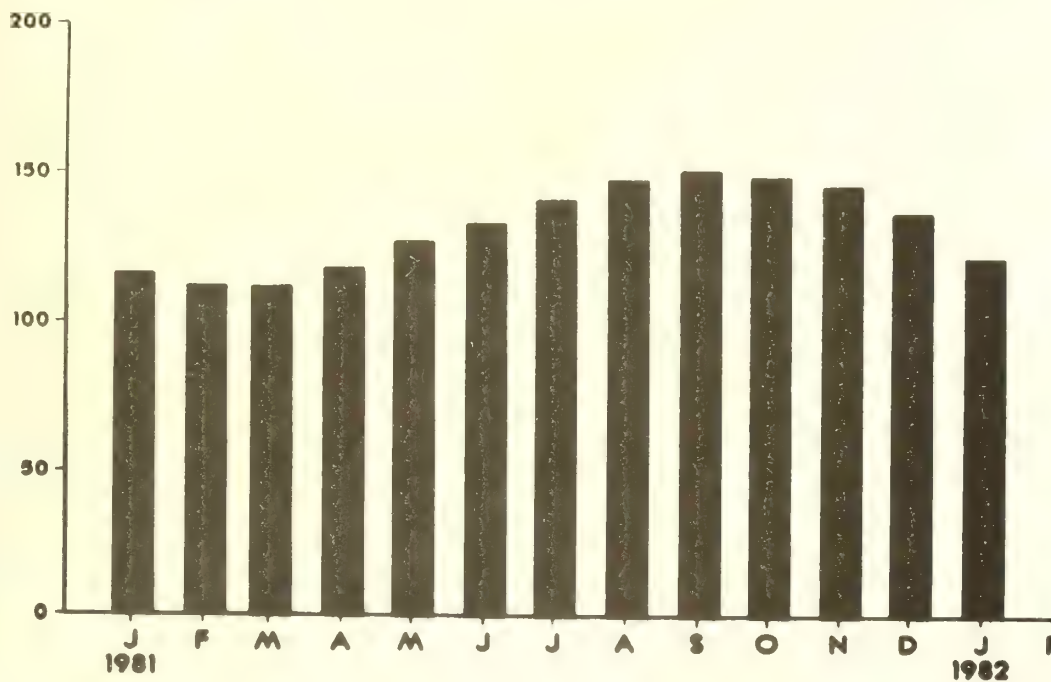
**Other Petroleum Products<sup>1</sup> Ending Stocks, Annual**  
Millions of Barrels



<sup>1</sup> Includes natural gasoline and isopentane, unfinished oils, gasoline blending components, jet fuels, kerosene, lubricants, and asphalt. Some gasoline blending components not included prior to 1981.

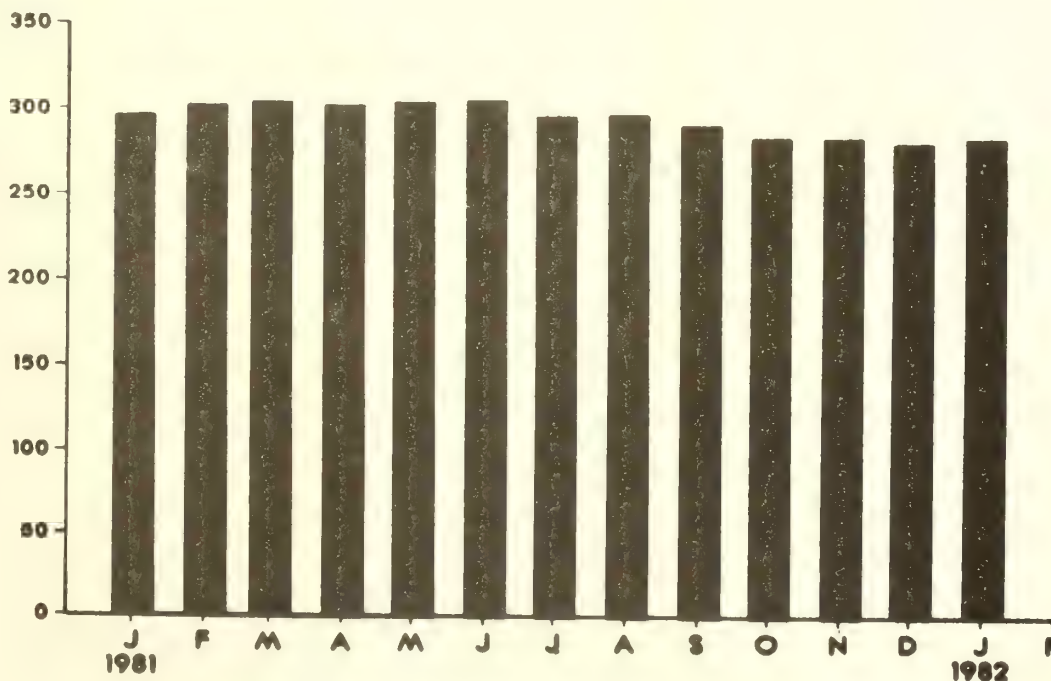
Source table: Other Petroleum Products Supply and Disposition.

**Liquefied Petroleum Gases and Ethane Ending Stocks, Monthly**  
Millions of Barrels



Source table: Liquefied Petroleum Gases and Ethane Supply and Disposition.

**Other Petroleum Products<sup>1</sup> Ending Stocks, Monthly**  
Millions of Barrels



<sup>1</sup> Includes natural gasoline and isopentane, unfinished oils, gasoline blending components, jet fuels, kerosene, lubricants, and asphalt.

Source table: Other Petroleum Products Supply and Disposition.

# Other Petroleum Products<sup>1</sup> Supply and Disposition

		Supply			Disposition			Ending Stocks <sup>2</sup>
		Total Produc-Tion	Imports	Stock Withdrawal <sup>3</sup>	Refinery Inputs	Exports	Products Supplied	Millions of Barrels
1973	AVERAGE	3,693	502	-9	750	166	3,270	208
1974	AVERAGE	3,558	432	-28	665	174	3,123	218
1975	AVERAGE	3,424	277	-2	537	160	3,002	219
1976	AVERAGE	3,643	206	-5	524	175	3,145	220
1977	AVERAGE	3,912	205	-27	514	165	3,410	230
1978	AVERAGE	4,046	166	14	492	167	3,568	225
1979	AVERAGE	4,153	195	-37	352	209	3,749	238
1980	January	4,157	269	135	591	186	3,785	234
	February	4,181	167	-153	380	174	3,641	239
	March	4,128	219	-370	149	200	3,627	250
	April	4,105	238	-374	86	180	3,703	261
	May	4,018	222	-301	135	227	3,577	271
	June	4,016	226	-49	250	256	3,687	272
	July	3,873	188	82	356	209	3,578	270
	August	3,753	138	212	351	221	3,532	263
	September	3,952	206	25	234	188	3,761	262
	October	3,737	220	175	351	193	3,588	257
	November	3,786	213	156	475	148	3,533	252
	December	3,792	209	151	362	194	3,596	247
		AVERAGE	3,956	210	-23	311	198	3,634
1981	January	3,719	159	86	827	132	3,005	296
	February	3,664	185	-219	513	208	2,909	302
	March	3,660	232	-42	643	210	2,996	304
	April	3,652	223	38	733	192	2,987	302
	May	3,832	201	-61	595	238	3,139	304
	June	3,898	230	-37	659	197	3,236	305
	July	3,840	134	302	797	212	3,267	296
	August	3,875	275	-25	678	219	3,228	297
	September	3,748	273	187	887	176	3,145	291
	October	3,495	237	231	738	227	2,999	284
	November	3,503	215	12	807	154	2,768	284
	December	3,486	207	88	793	223	2,766	281
		AVERAGE	3,693	219	49	724	200	3,038
1982	January*	3,181	240	-102	602	180	2,536	284

<sup>1</sup> Includes natural gasoline and isopentane, unfractionated stream, plant condensate, other liquids; and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane.

<sup>2</sup> Ending Stocks for 1973-1979 are totals as of December 31.

<sup>3</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease. Totals may not equal sum of components due to independent rounding.

\* See explanatory Note 5.6.

Note: Beginning in January 1975, the Bureau of Mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic Coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Crude Oil and Petroleum Product Imports from OPEC Sources

	Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC <sup>1</sup>	Total OPEC	Total Arab OPEC <sup>2</sup>
Thousand Barrels per Day											
<b>1973</b>											
<b>AVERAGE</b>	136	164	486	71	213	223	459	1,135	106	2,993	915
<b>1974</b>											
<b>AVERAGE</b>	190	4	461	74	300	469	713	979	88	3,280	752
<b>1975</b>											
<b>AVERAGE</b>	282	232	715	117	390	280	762	702	122	3,601	1,383
<b>1976</b>											
<b>AVERAGE</b>	432	453	1,230	254	539	298	1,025	700	134	5,066	2,424
<b>1977</b>											
<b>AVERAGE</b>	559	723	1,380	335	541	535	1,143	690	287	6,193	3,185
<b>1978</b>											
<b>AVERAGE</b>	649	654	1,144	385	573	555	919	645	226	5,751	2,963
<b>1979</b>											
<b>AVERAGE</b>	636	658	1,356	281	420	304	1,080	690	212	5,637	3,056
<b>1980</b>											
January	503	618	1,576	202	454	95	1,054	786	179	5,467	3,034
February	656	603	1,412	304	317	9	1,036	543	152	5,031	3,058
March	472	654	1,380	289	405	0	924	352	175	4,652	2,889
April	546	683	1,300	150	374	0	734	343	240	4,369	2,862
May	441	468	1,149	172	360	0	955	405	147	4,098	2,329
June	497	561	1,328	178	331	0	998	409	106	4,408	2,598
July	557	492	1,192	158	365	0	752	417	62	3,995	2,418
August	432	431	1,139	142	289	0	792	406	112	3,743	2,222
September	375	505	1,112	107	299	0	735	425	111	3,670	2,185
October	465	478	1,044	182	348	0	728	482	95	3,821	2,226
November	493	500	1,201	105	348	0	624	595	78	3,944	2,338
December	423	658	1,301	83	288	0	958	610	101	4,423	2,484
<b>AVERAGE</b>	<b>488</b>	<b>554</b>	<b>1,261</b>	<b>172</b>	<b>348</b>	<b>9</b>	<b>857</b>	<b>481</b>	<b>130</b>	<b>4,300</b>	<b>2,551</b>
<b>1981</b>											
January	324	500	1,297	93	424	0	908	556	27	4,129	2,214
February	381	468	1,122	93	407	0	866	466	92	3,895	2,064
March	352	485	1,027	47	328	0	771	360	54	3,425	1,911
April	263	496	1,056	85	314	0	826	237	42	3,317	1,916
May	393	443	929	17	277	0	664	317	124	3,164	1,792
June	390	380	865	60	355	0	519	248	118	2,934	1,736
July	333	251	1,073	80	340	0	651	502	38	3,269	1,757
August	348	274	1,068	61	377	0	321	514	84	3,047	1,751
September	336	154	1,451	96	371	0	323	359	149	3,238	2,036
October	242	147	1,342	90	427	0	412	383	172	3,214	1,820
November	185	132	1,236	112	353	0	517	487	55	3,077	1,665
December	176	122	1,075	158	395	0	698	415	102	3,141	1,532
<b>AVERAGE</b>	<b>310</b>	<b>320</b>	<b>1,128</b>	<b>83</b>	<b>364</b>	<b>0</b>	<b>622</b>	<b>404</b>	<b>88</b>	<b>3,318</b>	<b>1,848</b>
<b>1982</b>											
January*	254	161	877	87	273	0	662	376	128	2,818	1,378

<sup>1</sup> Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

<sup>2</sup> Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

\* These statistics appear in Table 21 of the Detailed Statistics.

Notes: Total may not equal sum of components due to independent rounding.

Beginning in October 1977, Strategic Petroleum Reserve imports were included.

Geographic coverage: The 50 United States and the District of Columbia, including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Crude Oil and Petroleum Product Imports from Non-OPEC Sources

	Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico <sup>1</sup>	Virgin Islands <sup>1</sup>	Other <sup>2</sup>	Total
	Thousand Barrels per Day									
<b>1973 AVERAGE</b>	174	1,325	16	585	255	15	99	329	465	3,263
<b>1974 AVERAGE</b>	164	1,070	8	511	251	8	90	391	340	2,832
<b>1975 AVERAGE</b>	152	846	71	332	242	14	90	406	300	2,454
<b>1976 AVERAGE</b>	118	599	87	275	274	31	88	422	353	2,247
<b>1977 AVERAGE</b>	171	517	179	211	289	126	105	466	550	2,614
<b>1978 AVERAGE</b>	160	467	318	229	253	180	94	429	484	2,613
<b>1979 AVERAGE</b>	147	538	439	231	190	202	92	431	548	2,819
<b>1980</b>										
January	175	570	545	289	239	296	57	467	492	3,131
February	111	540	477	205	192	105	95	536	652	2,914
March	124	460	460	184	189	232	101	449	601	2,800
April	56	459	546	231	143	182	76	425	619	2,737
May	77	419	576	176	221	124	88	303	496	2,481
June	77	409	627	197	162	146	91	314	465	2,486
July	43	378	460	242	180	115	90	378	376	2,262
August	62	319	646	255	159	196	85	264	463	2,449
September	58	458	550	213	205	218	52	343	473	2,569
October	70	475	605	230	114	134	107	372	450	2,557
November	22	470	459	264	158	157	108	391	435	2,464
December	54	502	445	212	149	199	109	423	378	2,471
<b>AVERAGE</b>	<b>78</b>	<b>455</b>	<b>533</b>	<b>225</b>	<b>176</b>	<b>176</b>	<b>88</b>	<b>388</b>	<b>491</b>	<b>2,609</b>
<b>1981</b>										
January	39	543	401	197	150	219	89	494	553	2,686
February	84	546	437	227	163	271	46	481	626	2,881
March	74	471	488	227	93	263	45	370	570	2,600
April	68	410	440	198	139	402	40	365	387	2,450
May	122	366	522	213	105	352	58	344	455	2,538
June	51	352	537	196	124	397	67	262	502	2,488
July	77	381	384	212	177	558	50	206	495	2,540
August	69	378	489	255	123	592	68	184	533	2,691
September	111	419	708	163	169	528	72	265	653	3,084
October	63	446	668	153	121	351	60	303	559	2,725
November	53	540	612	168	108	253	76	294	429	2,533
December	70	499	588	148	125	290	73	367	595	2,755
<b>AVERAGE</b>	<b>73</b>	<b>445</b>	<b>523</b>	<b>196</b>	<b>133</b>	<b>374</b>	<b>62</b>	<b>327</b>	<b>531</b>	<b>2,663</b>
<b>1982</b>										
January*	28	509	426	179	106	346	62	334	425	2,415

<sup>1</sup> U.S. Possessions.

<sup>2</sup> Includes All Non-OPEC countries except those shown above.

\* These statistics appear in Table 21 of the Detailed Statistics.

Note: Total may not equal sum of components due to independent rounding.

Beginning in October 1977, Strategic Petroleum Reserve imports were included.

Geographic coverage: The 50 United States and the District of Columbia, including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

## Sources

- 1973 through 1976: Bureau of Mines, U.S. Department of the Interior, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual," Mineral Industry Surveys.
- 1977 through 1980: Energy Information Administration, U.S. Department of Energy, "Monthly Petroleum Statistics Report," (unleaded gasoline category).
- 1977 through 1980: Energy Information Administration, U.S. Department of Energy, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual," Energy Data Reports.
- January 1981 through December 1981: Energy Information Administration, U.S. Department of Energy, "Monthly Petroleum Statement."
- January 1982: Detailed statistics in this issue. (See Explanatory Notes 5.1 through 5.6).
- February 1982: Estimates based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 2.2).
- February 1982: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey. (See Explanatory Note 2.7).



## Detailed Statistics





Table 1. U.S. Petroleum Balance, January 1982

	Current Month	
	Thousand Barrels	Thousand Barrels per Day
Crude Oil and Lease Condensate		
Field Production		
(1) Alaska .....	53,059	1,712
(2) Lower 48 States .....	E 215,676	6,957
(3) Total U.S. ....	E 268,735	8,669
Net Imports		
(4) Imports (Gross Excluding SPR) .....	107,812	3,478
(5) SPR Imports .....	5,271	170
(6) Exports .....	7,383	238
(7) Imports (Net Including SPR) .....	105,700	3,410
Other Sources		
(8) SPR Withdrawal (+) or Addition (-) .....	-4,930	-159
(9) Other Primary Stock Withdrawal (+) or Addition (-) .....	-2,395	-77
(10) Used Directly and Losses .....	-2,047	-66
(11) Unaccounted for <sup>1</sup> .....	-4,280	-138
(12) Total Other Sources .....	-13,652	-440
(13) Crude Input to Refineries .....	360,783	11,638
(13) = (3) + (7) + (12)		
Natural Gas Plant Liquids (NGPL)		
(14) Field Production .....	47,983	1,548
(15) Imports <sup>2</sup> .....	451	15
(16) Stock Withdrawal (+) or Addition (-) <sup>2</sup> .....	-429	-14
(17) Total NGPL Supply .....	48,006	1,549
Other Liquids		
Unfinished Oils and Gasoline Blending Components, Total		
(18) Stock Withdrawal (+) or Addition (-) .....	-4,193	-135
(19) Imports .....	5,488	177
(20) Other Hydrocarbons and Alcohol New Supply (Field Production) .....	1,253	40
(21) Refinery Processing Gain <sup>1</sup> .....	14,813	478
(22) Crude Used Directly .....	1,947	63
(23) Total Other Liquids .....	19,308	623
(23) = (18) through (22)		
(24) Total Production of Products <sup>3</sup> .....	428,097	13,810
(24) = (13) + (17) + (23)		
Net Imports of Refined Products <sup>3</sup>		
(25) Imports (Gross) .....	43,182	1,393
(26) Exports .....	18,310	591
(27) Imports (Net) .....	24,872	802
(28) Total New Supply of Products .....	452,969	14,612
(28) = (24) + (27)		
(29) Refined Products Stock Withdrawal (+) or Addition (-) <sup>3</sup> .....	39,607	1,278
(30) Total Products Supplied for Domestic Use .....	492,575	15,890
(30) = (28) + (29)		
(31) Finished Motor Gasoline .....	183,522	5,920
(32) Naphtha-Type Jet Fuel .....	4,944	159
(33) Kerosene-Type Jet Fuel .....	26,215	846
(34) Kerosene .....	6,361	205
(35) Distillate Fuel Oils .....	105,724	3,410
(36) Residual Fuel Oils .....	66,640	2,150
(37) Liquefied Petroleum Gases and Ethane .....	58,075	1,873
(38) Other .....	51,468	1,660
(39) Total Reclassified <sup>1</sup> .....	-10,373	-335
(40) Total Product Supplied .....	492,575	15,890
(40) = (31) through (39)		
Ending Stocks, All Oils		
(41) Crude Oil and Lease Condensate (Excluding SPR) .....	370,895	--
(42) Strategic Petroleum Reserve (SPR) .....	235,271	--
(43) Unfinished Oils .....	116,696	--
(44) Gasoline Blending Components .....	48,806	--
(45) Natural Gasoline and Unfractionated Stream .....	15,953	--
(46) Finished Refined Products <sup>3</sup> .....	673,252	--
(47) Total Stocks .....	1,460,874	--

<sup>1</sup> A balancing item.

<sup>2</sup> Includes isopentane, natural gasoline, and unfractionated stream, and plant condensate only.

<sup>3</sup> For products included see Explanatory Note 5.7.

E=Estimated.

-- Not Applicable.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1, 2, and 5.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, January 1982  
(Thousands of Barrels)

Commodity	Supply				Disposition				Ending Stocks	
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Refinery Inputs	Exports		Products Supplied
Crude Oil (including lease condensate) .....	E 268,735	0	113,083	-7,325	-4,280	-2,047	360,783	7,383	0	606,166
Natural Gas Plant Liquids and LRGs .....	47,391	7,590	10,173	14,444	0	0	18,086	2,091	59,422	138,126
Natural Gasoline and Isopentane .....	6,841	0	312	-1,245	0	0	4,566	0	1,343	10,790
Unfractionated Stream .....	-732	0	0	742	0	0	6	0	3	3,663
Plant Condensate .....	950	0	139	74	0	0	1,162	0	1	1,499
Liquefied Petroleum Gases and Ethane .....	40,333	7,590	9,722	14,873	0	0	12,352	2,091	58,075	122,173
Ethane .....	8,277	184	1,823	-175	0	0	256	(s)	9,853	5,115
Propane .....	15,277	7,520	3,079	10,674	0	0	137	777	35,636	66,625
Butane .....	6,787	-137	2,476	3,944	0	0	8,007	1,314	3,750	23,798
Butane-Propane Mixtures .....	102	16	496	630	0	0	173	0	1,071	1,117
Ethane-Propane Mixtures .....	6,539	0	1,848	-629	0	0	0	0	7,757	17,345
Isobutane .....	3,351	7	0	429	0	0	3,779	0	9	8,183
Other Liquids .....	1,253	0	5,488	-4,193	0	0	12,921	0	-10,373	165,502
Other Hydrocarbons and Alcohol .....	1,253	0	0	32	0	0	1,285	0	0	190
Unfinished Oils .....	0	0	4,134	-4,653	0	0	4,073	0	-4,592	116,696
Motor Gasoline Blending Components .....	0	0	1,354	401	0	0	7,587	0	-5,832	47,952
Aviation Gasoline Blending Components .....	0	0	0	27	0	0	-24	0	51	664
Finished Petroleum Products .....	592	399,013	33,460	24,734	0	1,947	0	16,220	443,526	551,080
Finished Motor Gasoline .....	98	191,527	3,544	-11,085	0	0	0	562	183,522	214,147
Finished Leaded Motor Gasoline .....	94	92,053	1,415	-3,501	0	0	0	562	89,499	111,669
Finished Unleaded Motor Gasoline .....	4	99,365	2,128	-7,596	0	0	0	0	93,901	102,431
Gasohol .....	0	109	0	13	0	0	0	0	122	46
Finished Aviation Gasoline .....	53	593	0	44	0	0	0	0	690	2,688
Naphtha-Type Jet Fuel .....	0	4,737	101	106	0	0	0	(s)	4,944	6,819
Kerosene-Type Jet Fuel .....	0	23,066	217	3,186	0	0	0	255	26,215	30,359
Kerosene .....	5	4,410	710	1,487	0	0	0	251	6,361	9,597
Distillate Fuel Oil .....	3	81,050	2,973	24,184	0	306	0	2,793	105,724	165,991
Residual Fuel Oil .....	0	36,673	25,440	10,171	0	1,641	0	7,285	66,640	68,177
Naphtha < 400 Deg. for Petro. Feed Use .....	0	4,583	198	-59	0	0	0	85	4,636	2,577
Other Oils > 400 Deg. for Petro. Feed Use .....	0	8,757	0	58	0	0	0	1,138	7,677	1,692
Special Naphthas .....	35	1,324	92	-189	0	0	0	89	1,173	4,147
Lubricants .....	0	4,274	168	-145	0	0	0	395	3,902	14,370
Waxes .....	0	456	11	16	0	0	0	21	462	654
Petroleum Coke .....	0	12,102	0	352	0	0	0	3,282	9,172	4,147
Asphalt .....	0	6,521	1	-3,587	0	0	0	6	2,928	23,106
Road Oil .....	0	3	0	5	0	0	0	0	8	19
Still Gas .....	0	15,785	0	0	0	0	0	0	15,785	0
Miscellaneous Products .....	399	3,152	7	188	0	0	0	59	3,687	2,599
Total .....	317,971	406,603	162,205	27,660	-4,280	-100	391,790	25,693	492,575	1,460,874

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

(s) Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 3. Year-to-Date Supply and Disposition Statistics of Crude Oil and Petroleum Products, January 1982  
(Thousands of Barrels)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 268,735	0	113,083	-7,325	-4,280	-2,047	360,783	7,383	0	606,166
Natural Gas Plant Liquids and LRGs	47,391	7,590	10,173	14,444	0	0	18,086	2,091	59,422	138,126
Natural Gasoline and Isopentane	6,841	0	312	-1,245	0	0	4,566	0	1,343	10,790
Unfractionated Stream	-732	0	0	742	0	0	6	0	3	3,663
Plant Condensate	950	0	139	74	0	0	1,162	0	1	1,499
Liquefied Petroleum Gases and Ethane	40,333	7,590	9,722	14,873	0	0	12,352	2,091	58,075	122,173
Ethane	8,277	184	1,823	-175	0	0	256	(s)	9,853	5,115
Propane	15,277	7,520	3,079	10,674	0	0	137	777	35,636	66,625
Butane	6,787	-137	2,476	3,944	0	0	8,007	1,314	3,750	23,788
Butane-Propane Mixtures	102	16	496	630	0	0	173	0	1,071	1,117
Ethane-Propane Mixtures	6,539	0	1,848	-629	0	0	0	0	7,757	17,345
Isobutane	3,351	7	0	429	0	0	3,779	0	9	8,183
Other Liquids	1,253	0	5,488	-4,193	0	0	12,921	0	-10,373	165,502
Other Hydrocarbons and Alcohol	1,253	0	0	32	0	0	1,285	0	0	190
Unfinished Oils	0	0	4,134	-4,653	0	0	4,073	0	-4,592	116,696
Motor Gasoline Blending Components	0	0	1,354	401	0	0	7,587	0	-5,832	47,952
Aviation Gasoline Blending Components	0	0	0	27	0	0	-24	0	51	664
Finished Petroleum Products	592	399,013	33,460	24,734	0	1,947	0	16,220	443,526	551,080
Finished Motor Gasoline	98	191,527	3,544	-11,085	0	0	0	562	183,522	214,147
Finished Leaded Motor Gasoline	94	92,053	1,415	-3,501	0	0	0	562	89,499	111,669
Finished Unleaded Motor Gasoline	4	99,365	2,128	-7,596	0	0	0	0	93,901	102,431
Gasohol	0	109	0	13	0	0	0	0	122	46
Finished Aviation Gasoline	53	593	0	44	0	0	0	0	690	2,688
Naphtha-Type Jet Fuel	0	4,737	101	106	0	0	0	(s)	4,944	6,819
Kerosene-Type Jet Fuel	0	23,066	217	3,186	0	0	0	255	26,215	30,359
Kerosene	5	4,410	710	1,487	0	0	0	251	6,361	9,597
Distillate Fuel Oil	3	81,050	2,973	24,184	0	306	0	2,793	105,724	165,991
Residual Fuel Oil	0	36,673	25,440	10,171	0	1,641	0	7,285	66,640	68,177
Naphtha < 400 Deg. for Petro. Feed Use	0	4,583	198	-59	0	0	0	85	4,636	2,577
Other Oils > 400 Deg. for Petro. Feed Use	0	8,757	0	58	0	0	0	1,138	7,677	1,692
Special Naphthas	35	1,324	92	-189	0	0	0	89	1,173	4,147
Lubricants	0	4,274	168	-145	0	0	0	395	3,902	14,370
Waxes	0	456	11	16	0	0	0	21	462	654
Petroleum Coke	0	12,102	0	352	0	0	0	3,282	9,172	4,147
Asphalt	0	6,521	1	-3,587	0	0	0	6	2,928	23,106
Road Oil	0	3	0	5	0	0	0	0	8	19
Still Gas	0	15,785	0	0	0	0	0	0	15,785	0
Miscellaneous Products	399	3,152	7	188	0	0	0	59	3,687	2,589
Total	317,971	406,603	162,205	27,660	-4,280	-100	391,790	25,693	492,575	1,460,874

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

(s) Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January 1982  
(Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock With-drawal(+) Addition(-)	Unac-counted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate) .....	E 8,669	0	3,648	-236	-138	-66	11,638	238	0
Natural Gas Plant Liquids and LRGs .....	1,529	245	328	466	0	0	583	67	1,917
Natural Gasoline and Isopentane .....	221	0	10	-40	0	0	147	0	43
Unfractionated Stream .....	-24	0	0	24	0	0	(s)	0	(s)
Plant Condensate .....	31	0	4	2	0	0	37	0	(s)
Liquefied Petroleum Gases and Ethane .....	1,301	245	314	480	0	0	398	67	1,873
Ethane .....	267	6	59	-6	0	0	8	(s)	318
Propane .....	493	243	99	344	0	0	4	25	1,150
Butane .....	219	-4	80	127	0	0	258	42	121
Butane-Propane Mixtures .....	3	1	16	20	0	0	6	0	35
Ethane-Propane Mixtures .....	211	0	60	-20	0	0	0	0	250
Isobutane .....	108	(s)	0	14	0	0	122	0	(s)
Other Liquids .....	40	0	177	-135	0	0	417	0	-335
Other Hydrocarbons and Alcohol .....	40	0	0	1	0	0	41	0	0
Unfinished Oils .....	0	0	133	-150	0	0	131	0	-148
Motor Gasoline Blending Components .....	0	0	44	13	0	0	245	0	-188
Aviation Gasoline Blending Components .....	0	0	0	1	0	0	-1	0	2
Finished Petroleum Products .....	19	12,871	1,079	798	0	63	0	523	14,307
Finished Motor Gasoline .....	3	6,178	114	-358	0	0	0	18	5,920
Finished Leaded Motor Gasoline .....	3	2,969	46	-113	0	0	0	0	2,887
Finished Unleaded Motor Gasoline .....	(s)	3,205	69	-245	0	0	0	0	3,029
Gasohol .....	0	4	0	(s)	0	0	0	0	4
Finished Aviation Gasoline .....	2	19	0	1	0	0	0	0	22
Naphtha-Type Jet Fuel .....	0	153	3	3	0	0	0	(s)	159
Kerosene-Type Jet Fuel .....	0	744	7	103	0	0	0	8	846
Kerosene .....	(s)	142	23	48	0	0	0	8	205
Distillate Fuel Oil .....	(s)	2,615	96	780	0	10	0	90	3,410
Residual Fuel Oil .....	0	1,183	821	328	0	53	0	235	2,150
Naphtha < 400 Deg. for Petro. Feed. Use .....	0	148	6	-2	0	0	0	3	150
Other Oils > 400 Deg. for Petro. Feed. Use .....	0	282	0	2	0	0	0	37	248
Special Naphthas .....	1	43	3	-6	0	0	0	3	38
Lubricants .....	0	138	5	-5	0	0	0	13	126
Waxes .....	0	15	(s)	1	0	0	0	1	15
Petroleum Coke .....	0	390	0	11	0	0	0	106	296
Asphalt .....	0	210	(s)	-116	0	0	0	(s)	94
Road Oil .....	0	(s)	0	(s)	0	0	0	0	(s)
Still Gas .....	0	509	0	0	0	0	0	0	509
Miscellaneous Products .....	13	102	(s)	6	0	0	0	2	119
Total .....	10,257	13,116	5,232	892	-138	-3	12,638	829	15,890

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

(s) Less than 500 barrels.

E=Estimated.

Note: Total may not equal sum of components due to independent rounding.  
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January 1982  
(Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)									
E 8,669	0	3,648	-236	-138	-66	11,638	238	0	0
Natural Gas Plant Liquids and LRGs									
1,529	245	328	466	0	0	583	67	1,917	1,917
Natural Gasoline and Isopentane	221	0	10	-40	0	147	0	43	43
Unfractionated Stream	-24	0	24	0	0	(s)	0	0	(s)
Plant Condensate	31	0	4	2	0	37	0	0	(s)
Liquefied Petroleum Gases and Ethane	1,301	245	314	480	0	398	67	1,873	1,873
Ethane	267	6	59	-6	0	8	(s)	318	318
Propane	493	243	99	344	0	4	25	1,150	1,150
Butane	219	-4	80	127	0	258	42	121	121
Butane-Propane Mixtures	3	1	16	20	0	6	0	35	35
Ethane-Propane Mixtures	211	0	60	-20	0	0	0	250	250
Isobutane	108	(s)	0	14	0	122	0	(s)	(s)
Other Liquids									
40	0	177	-135	0	0	417	0	-335	-335
Other Hydrocarbons and Alcohol	40	0	1	0	0	41	0	0	0
Unfinished Oils	0	0	133	-150	0	131	0	-148	-148
Motor Gasoline Blending Components	0	0	44	13	0	245	0	-188	-188
Aviation Gasoline Blending Components	0	0	0	1	0	-1	0	2	2
Finished Petroleum Products									
19	12,871	1,079	798	0	63	0	523	14,307	14,307
Finished Motor Gasoline	3	6,178	114	-358	0	0	18	5,920	5,920
Finished Leaded Motor Gasoline	3	2,969	46	-113	0	0	18	2,887	2,887
Finished Unleaded Motor Gasoline	(s)	3,205	69	-245	0	0	0	3,029	3,029
Gasohol	0	4	0	(s)	0	0	0	4	4
Finished Aviation Gasoline	2	19	0	1	0	0	0	22	22
Naphtha-Type Jet Fuel	0	153	3	3	0	0	(s)	159	159
Kerosene-Type Jet Fuel	0	744	7	103	0	0	8	846	846
Kerosene	(s)	142	23	48	0	0	8	205	205
Distillate Fuel Oil	(s)	2,615	96	780	10	0	90	3,410	3,410
Residual Fuel Oil	0	1,183	821	328	53	0	235	2,150	2,150
Naphtha < 400 Deg. for Petro. Feed. Use	0	148	6	-2	0	0	3	150	150
Other Oils > 400 Deg. for Petro. Feed. Use	0	282	0	2	0	0	37	248	248
Special Naphthas	1	43	3	-6	0	0	3	38	38
Lubricants	0	138	5	-5	0	0	13	126	126
Waxes	0	15	(s)	1	0	0	1	15	15
Petroleum Coke	0	390	0	11	0	0	106	296	296
Asphalt	0	210	(s)	-116	0	0	(s)	94	94
Road Oil	0	(s)	0	(s)	0	0	0	0	(s)
Still Gas	0	509	0	0	0	0	0	509	509
Miscellaneous Products	13	102	(s)	6	0	0	2	119	119
Total	10,257	13,116	5,232	892	-138	-3	12,638	829	15,890

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

(s) Less than 500 barrels.

E=Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 6. PAD District I, Supply and Disposition of Crude Oil and Petroleum Products, January 1982  
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply Stock Withdrawal (+) or Addition (-)	Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Disposition			Ending Stocks
							Refinery Inputs	Exports	Products Supplied	
<b>Crude Oil (including lease condensate)</b> .....	<b>E 3,109</b>	<b>0</b>	<b>28,693</b>	<b>4,412</b>	<b>-109</b>	<b>3,358</b>	<b>39,463</b>	<b>0</b>	<b>0</b>	<b>18,552</b>
<b>Natural Gas Plant Liquids and LRGs</b> .....	<b>1,101</b>	<b>1,292</b>	<b>995</b>	<b>1,930</b>	<b>0</b>	<b>3,934</b>	<b>362</b>	<b>40</b>	<b>8,439</b>	<b>4,433</b>
Liquefied Petroleum Gases .....	442	1,292	995	2,067	0	3,934	329	40	8,360	3,505
Ethane .....	341	0	0	-126	0	0	0	(s)	215	888
Other Products <sup>3</sup> .....	318	0	0	-11	0	0	33	0	274	40
<b>Other Liquids</b> .....	<b>106</b>	<b>0</b>	<b>1,924</b>	<b>-124</b>	<b>0</b>	<b>12</b>	<b>2,624</b>	<b>0</b>	<b>-706</b>	<b>20,224</b>
Other Hydrocarbons and Alcohol .....	106	0	0	3	0	0	109	0	0	2
Unfinished Oils .....	0	0	1,715	-707	0	12	787	0	233	14,065
Motor Gasoline Blending Components .....	0	0	209	580	0	0	1,728	0	-939	6,157
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0
<b>Finished Petroleum Products</b> .....	<b>72</b>	<b>42,838</b>	<b>29,945</b>	<b>23,764</b>	<b>0</b>	<b>84,125</b>	<b>0</b>	<b>933</b>	<b>179,811</b>	<b>193,375</b>
Finished Motor Gasoline .....	72	20,804	2,753	-2,929	0	41,480	0	(s)	61,980	65,557
Finished Leaded Motor Gasoline .....	72	9,346	1,146	-478	0	18,538	0	(s)	28,624	31,333
Finished Unleaded Motor Gasoline .....	0	11,258	1,607	-2,463	0	22,942	0	0	33,344	34,222
Gasohol .....	0	0	0	12	0	0	0	0	12	2
Finished Aviation Gasoline .....	0	5	0	61	0	145	0	0	211	419
Naphtha-Type Jet Fuel .....	0	485	101	6	0	688	0	(s)	1,280	828
Kerosene-Type Jet Fuel .....	0	1,443	187	318	0	8,144	0	1	10,091	7,758
Kerosene .....	0	449	710	811	0	1,380	0	(s)	3,350	4,622
Distillate Fuel Oil .....	0	8,360	2,808	18,522	0	23,966	0	207	53,450	69,184
Residual Fuel Oil .....	0	6,281	23,169	8,445	0	6,487	0	493	43,889	32,190
Naphtha and Other Oils for Petro. Feed. Use .....	0	405	37	-113	0	82	0	35	375	339
Special Naphthas .....	0	18	11	-124	0	199	0	3	101	1,332
Lubricants .....	0	529	167	-54	0	591	0	86	1,147	4,284
Waxes .....	0	99	(s)	-11	0	23	0	4	107	132
Petroleum Coke .....	0	1,158	0	-11	0	0	0	87	1,060	670
Asphalt .....	0	809	1	-999	0	210	0	1	20	5,558
Road Oil .....	0	0	0	0	0	0	0	0	0	0
Still Gas .....	0	1,771	0	0	0	0	0	0	1,771	0
Miscellaneous Products .....	0	422	1	-158	0	730	0	16	979	502
<b>Total</b> .....	<b>4,388</b>	<b>44,130</b>	<b>61,557</b>	<b>29,982</b>	<b>-109</b>	<b>91,429</b>	<b>42,449</b>	<b>973</b>	<b>187,954</b>	<b>236,584</b>

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

<sup>3</sup> Includes natural gasoline, isopentane, plant condensate and unfractionated stream.

(s) Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

**Table 7. PAD District II Supply and Disposition of Crude Oil and Petroleum Products, January, 1982**  
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Disposition		
								Refinery Inputs	Exports	Products Supplied
<b>Crude Oil (including lease condensate)</b> .....	<b>E 29,979</b>	<b>0</b>	<b>16,799</b>	<b>1,279</b>	<b>37,661</b>	<b>-8</b>	<b>1,100</b>	<b>85,462</b>	<b>1,348</b>	<b>0</b>
<b>Natural Gas Plant Liquids and LRGs</b> .....	<b>9,403</b>	<b>1,881</b>	<b>6,381</b>	<b>5,358</b>	<b>0</b>	<b>0</b>	<b>6,407</b>	<b>5,896</b>	<b>960</b>	<b>22,573</b>
Liquefied Petroleum Gases .....	8,288	1,866	4,557	6,447	0	0	5,402	4,461	960	21,139
Ethane .....	1,770	15	1,823	203	0	0	0	0	0	3,812
Other Products <sup>3</sup> .....	-655	0	0	-1,292	0	0	1,005	1,435	0	-2,378
<b>Other Liquids</b> .....	<b>100</b>	<b>0</b>	<b>765</b>	<b>-2,381</b>	<b>0</b>	<b>0</b>	<b>1,156</b>	<b>2,185</b>	<b>0</b>	<b>-2,545</b>
Other Hydrocarbons and Alcohol .....	100	0	0	18	0	0	0	118	0	0
Unfinished Oils .....	0	0	320	-1,939	0	0	193	212	0	-1,638
Motor Gasoline Blending Components .....	0	0	445	-479	0	0	963	1,838	0	-909
Aviation Gasoline Blending Components .....	0	0	0	19	0	0	0	17	0	2
<b>Finished Petroleum Products</b> .....	<b>16</b>	<b>95,025</b>	<b>185</b>	<b>-3,348</b>	<b>0</b>	<b>0</b>	<b>12,173</b>	<b>0</b>	<b>122</b>	<b>103,929</b>
Finished Motor Gasoline .....	0	53,947	2	-5,539	0	0	8,456	0	0	56,866
Finished Leaded Motor Gasoline .....	0	25,734	0	-1,254	0	0	4,513	0	0	28,993
Finished Unleaded Motor Gasoline .....	0	28,195	2	-4,290	0	0	3,943	0	0	27,850
Gasohol .....	0	18	0	5	0	0	0	0	0	23
Finished Aviation Gasoline .....	0	154	0	-70	0	0	53	0	0	137
Naphtha-Type Jet Fuel .....	0	772	0	25	0	0	86	0	0	883
Kerosene-Type Jet Fuel .....	0	3,266	0	665	0	0	1,177	0	0	6,794
Kerosene .....	0	1,004	0	293	0	0	284	0	0	5,108
Distillate Fuel Oil .....	1	20,201	0	2,222	0	0	2,755	0	(S)	1,581
Residual Fuel Oil .....	0	4,385	117	544	0	0	-1,245	0	(S)	25,179
Naphtha and Other Oils for Petro. Feed. Use .....	0	1,606	0	-144	0	0	61	0	9	3,801
Special Naphthas .....	0	297	55	-58	0	0	168	0	5	1,514
Lubricants .....	0	779	(S)	34	0	0	202	0	10	457
Waxes .....	0	24	5	8	0	0	0	0	1	1,005
Petroleum Coke .....	0	3,106	0	133	0	0	0	0	0	36
Asphalt .....	0	1,878	0	-1,473	0	0	0	0	94	3,145
Road Oil .....	0	-5	0	9	0	0	100	0	1	787
Still Gas .....	0	3,472	0	0	0	0	0	0	0	504
Miscellaneous Products .....	15	139	6	3	0	0	76	0	0	4
<b>Total</b> .....	<b>39,498</b>	<b>96,906</b>	<b>24,129</b>	<b>908</b>	<b>37,661</b>	<b>-8</b>	<b>20,836</b>	<b>93,543</b>	<b>2,430</b>	<b>123,957</b>
										<b>299,735</b>

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

<sup>3</sup> Includes natural gasoline, isopentane, plant condensate and unfractionated stream.

(S) Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 8. PAD District III Supply and Disposition of Crude Oil and Petroleum Products, January 1982  
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Disposition			Ending Stocks
								Refinery Inputs	Exports	Products Supplied	
<b>Crude Oil (including lease condensate)</b> .....	<b>E 129,899</b>	<b>0</b>	<b>57,724</b>	<b>-10,477</b>	<b>-27,544</b>	<b>-81</b>	<b>11,090</b>	<b>160,611</b>	<b>0</b>	<b>0</b>	<b>401,985</b>
<b>Natural Gas Plant Liquids and LRGs</b> .....	<b>34,098</b>	<b>3,550</b>	<b>1,339</b>	<b>6,636</b>	<b>0</b>	<b>0</b>	<b>-10,302</b>	<b>9,606</b>	<b>894</b>	<b>24,821</b>	<b>94,998</b>
Liquefied Petroleum Gases .....	22,324	3,381	1,027	6,029	0	0	-9,588	5,502	894	16,777	80,115
Ethane .....	6,150	169	0	-252	0	0	0	255	0	5,811	3,535
Other Products <sup>3</sup> .....	5,624	0	312	860	0	0	-714	3,849	0	2,233	11,348
<b>Other Liquids</b> .....	<b>598</b>	<b>0</b>	<b>2,413</b>	<b>-433</b>	<b>0</b>	<b>0</b>	<b>-1,168</b>	<b>8,407</b>	<b>0</b>	<b>-6,997</b>	<b>68,334</b>
Other Hydrocarbons and Alcohol .....	598	0	0	12	0	0	0	610	0	0	87
Unfinished Oils .....	0	0	1,879	-1,574	0	0	-205	4,240	0	-4,140	49,639
Motor Gasoline Blending Components .....	0	0	533	1,135	0	0	-963	3,612	0	-2,907	18,121
Aviation Gasoline Blending Components .....	0	0	0	-6	0	0	0	-55	0	49	487
<b>Finished Petroleum Products</b> .....	<b>486</b>	<b>181,564</b>	<b>2,175</b>	<b>6,372</b>	<b>0</b>	<b>16</b>	<b>-99,382</b>	<b>0</b>	<b>9,708</b>	<b>81,524</b>	<b>133,889</b>
Finished Motor Gasoline .....	23	81,530	236	-1,807	0	0	-51,561	0	70	28,351	52,120
Finished Leaded Motor Gasoline .....	19	38,991	(s)	-1,610	0	0	-23,960	0	70	13,370	27,572
Finished Unleaded Motor Gasoline .....	3	42,539	236	-199	0	0	-27,601	0	0	14,978	24,539
Gasohol .....	0	0	0	3	0	0	0	0	0	3	9
Finished Aviation Gasoline .....	53	221	0	41	0	0	-211	0	0	104	822
Naphtha-Type Jet Fuel .....	0	2,231	0	-178	0	0	-912	0	0	1,141	3,117
Kerosene-Type Jet Fuel .....	0	11,529	0	1,783	0	0	-10,103	0	227	2,982	9,033
Kerosene .....	5	2,631	0	258	0	0	-1,664	0	(s)	1,230	2,701
Distillate Fuel Oil .....	2	38,418	2	4,603	0	16	-26,903	0	1,568	14,570	30,835
Residual Fuel Oil .....	0	14,634	1,818	1,466	0	0	-5,489	0	5,199	7,230	17,435
Naphtha and Other Oils for Petro. Feed Use .....	0	10,897	100	181	0	0	-143	0	769	10,266	3,096
Special Naphthas .....	35	896	14	12	0	0	-367	0	79	510	1,588
Lubricants .....	0	2,594	(s)	-66	0	0	-911	0	251	1,366	6,304
Waxes .....	0	259	5	19	0	0	-23	0	11	249	405
Petroleum Coke .....	0	4,255	0	355	0	0	0	0	1,493	3,117	515
Asphalt .....	0	2,326	0	-563	0	0	-310	0	1	1,452	4,549
Road Oil .....	0	0	0	0	0	0	0	0	0	0	2
Still Gas .....	0	6,827	0	0	0	0	0	0	0	6,827	0
Miscellaneous Products .....	370	2,316	0	267	0	0	-785	0	39	2,129	1,366
<b>Total</b> .....	<b>165,081</b>	<b>185,114</b>	<b>63,651</b>	<b>2,099</b>	<b>-27,544</b>	<b>-65</b>	<b>-99,762</b>	<b>178,624</b>	<b>10,603</b>	<b>99,347</b>	<b>699,206</b>

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

<sup>3</sup> Includes natural gasoline, isopentane, plant condensate and unfractionated stream.

(s) Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 9. PAD District IV Supply and Disposition of Crude Oil and Petroleum Products, January 1982  
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply		Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Disposition		
				Stock With-drawal (+) or Addition (-)	Unac-counted For Crude Oil <sup>1</sup>			Refinery Inputs	Exports	Products Supplied
<b>Crude Oil (including lease condensate)</b> .....	E 18,614	0	2,677	60	-8,485	-11	0	12,855	0	0
<b>Natural Gas Plant Liquids and LRGs</b> .....	2,213	129	649	107	0	0	-39	746	0	2,313
Liquefied Petroleum Gases .....	741	129	519	96	0	0	252	579	0	1,007
Ethane .....	16	0	0	(s)	0	0	0	1	0	(s)
Other Products <sup>3</sup> .....	1,456	0	129	12	0	0	-291	166	0	1,140
289										
<b>Other Liquids</b> .....	88	0	27	-580	0	0	0	-910	0	445
Other Hydrocarbons and Alcohol .....	88	0	0	0	0	0	0	88	0	0
Unfinished Oils .....	0	0	0	-149	0	0	0	-621	0	472
Motor Gasoline Blending Components .....	0	0	27	-431	0	0	0	-377	0	-27
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0
<b>Finished Petroleum Products</b> .....	18	12,695	(s)	-1,130	0	11	453	0	1	12,046
Finished Motor Gasoline .....	4	6,576	0	-657	0	0	173	0	0	6,507
Finished Leaded Motor Gasoline .....	2	4,316	0	-304	0	0	-44	0	0	3,970
Finished Unleaded Motor Gasoline .....	1	2,259	0	-352	0	0	217	0	0	2,125
Gasohol .....	0	1	0	0	0	0	0	0	0	1
Finished Aviation Gasoline .....	0	22	0	-5	0	0	13	0	0	30
Naphtha-Type Jet Fuel .....	0	318	0	0	0	0	-113	0	0	205
Kerosene-Type Jet Fuel .....	0	432	0	24	0	0	637	0	0	1,093
Kerosene .....	0	108	0	41	0	0	0	0	0	149
Distillate Fuel Oil .....	0	3,274	(s)	-180	0	0	-257	0	0	2,837
Residual Fuel Oil .....	0	526	0	40	0	11	0	0	0	577
Naphtha and Other Oils for Petro. Feed. Use .....	0	5	0	0	0	0	0	0	0	5
Special Naphthas .....	0	2	0	5	0	0	0	0	0	7
Lubricants .....	0	41	(s)	-21	0	0	0	0	0	20
Waxes .....	0	17	0	-2	0	0	0	0	(s)	15
Petroleum Coke .....	0	330	0	-33	0	0	0	0	(s)	3
Asphalt .....	0	494	0	-341	0	0	0	0	(s)	297
Road Oil .....	0	1	0	-3	0	0	0	0	0	153
Still Gas .....	0	529	0	0	0	0	0	0	0	-2
Miscellaneous Products .....	14	20	0	1	0	0	0	0	(s)	35
<b>Total</b> .....	20,933	12,824	3,354	-1,543	-8,485	0	414	12,691	1	14,805
										37,097

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

<sup>3</sup> Includes natural gasoline, isopentane, plant condensate, and unfractionated stream.

(s) Less than 500 barrels.

E=Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 10. PAD District V Supply and Disposition of Crude Oil and Petroleum Products, January 1982  
(Thousands of Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 87,134	0	7,189	-2,599	-5,802	-1,947	-15,548	62,392	6,035	0	88,294
Natural Gas Plant Liquids and LRGs	577	738	810	413	0	0	0	1,476	196	866	1,789
Liquefied Petroleum Gases	261	738	800	410	0	0	0	1,225	196	788	1,742
Ethane	0	0	0	0	0	0	0	0	0	0	0
Other Products <sup>3</sup>	316	0	10	3	0	0	0	251	0	77	47
Other Liquids	361	0	360	-675	0	0	0	615	0	-569	35,671
Other Hydrocarbons and Alcohol	361	0	0	-1	0	0	0	360	0	0	2
Unfinished Oils	0	0	220	-284	0	0	0	-545	0	481	26,563
Motor Gasoline Blending Components	0	0	139	-404	0	0	0	786	0	-1,051	9,070
Aviation Gasoline Blending Components	0	0	0	14	0	0	0	14	0	0	36
Finished Petroleum Products	0	66,891	1,155	-925	0	1,920	2,631	0	5,456	66,216	62,498
Finished Motor Gasoline	0	28,870	553	-154	0	0	1,452	0	491	30,229	22,894
Finished Leaded Motor Gasoline	0	13,666	269	145	0	0	953	0	491	14,542	11,113
Finished Unleaded Motor Gasoline	0	15,114	283	-292	0	0	499	0	0	15,604	11,774
Gasohol	0	90	0	-7	0	0	0	0	0	83	7
Finished Aviation Gasoline	0	191	0	17	0	0	0	0	0	208	690
Naphtha-Type Jet Fuel	0	931	0	253	0	0	251	0	0	1,435	1,418
Kerosene-Type Jet Fuel	0	6,396	31	396	0	0	145	0	27	6,941	6,227
Kerosene	0	218	0	84	0	0	0	0	250	52	159
Distillate Fuel Oil	0	10,797	163	-983	0	290	439	0	1,019	9,687	14,524
Residual Fuel Oil	0	10,847	336	-324	0	1,630	247	0	1,593	11,143	10,190
Naphtha and Other Oils for Petro. Feed. Use	0	427	60	75	0	0	0	0	409	153	347
Special Naphthas	0	111	12	-24	0	0	0	0	2	97	285
Lubricants	0	331	(s)	-38	0	0	118	0	46	365	1,517
Waxes	0	57	1	2	0	0	0	0	5	55	45
Petroleum Coke	0	3,253	0	-92	0	0	0	0	1,608	1,553	1,562
Asphalt	0	1,014	0	-211	0	0	0	0	2	801	2,365
Road Oil	0	7	0	-1	0	0	0	0	0	6	5
Still Gas	0	3,186	0	0	0	0	0	0	0	3,186	0
Miscellaneous Products	0	255	(s)	75	0	0	-21	0	4	305	270
Total	88,072	67,629	9,514	-3,786	-5,802	-27	-12,917	64,483	11,687	66,512	188,252

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

<sup>3</sup> Includes natural gasoline, isopentane, plant condensate and unfractionated stream.

(s) Less than 500 barrels.

E=Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 11. Production of Crude Oil (including Lease Condensate) by PAD District and State, for the Most Current Month,<sup>1</sup> November 1981  
(Thousands of Barrels)

PAD District and State	Production		PAD District and State	Production	
	Total	Daily Average		Total	Daily Average
<b>PAD District I</b>			<b>PAD District IV</b>		
Florida .....	2,563	85	Colorado .....	2,491	83
New York .....	E 65	2	Montana .....	2,568	86
Pennsylvania .....	E 209	7	Utah .....	E 2,160	72
Virginia .....	0	0	Wyoming .....	E 10,731	358
West Virginia .....	E 197	7	<b>Total</b> .....	E 17,950	598
<b>Total</b> .....	E 3,034	101			
<b>PAD District II</b>			<b>PAD District V</b>		
Illinois .....	2,025	68	Alaska .....		
Indiana .....	E 379	13	South Alaska .....	2,440	81
Kansas .....	5,566	186	North Slope .....	45,987	1,533
Kentucky .....	559	19	Total Alaska .....	48,427	1,614
Michigan .....	2,617	87	Arizona .....	35	1
Missouri .....	E 7	(s)	California .....		
Nebraska .....	541	18	Central Coastal .....	6,183	206
North Dakota .....	3,626	121	East Central .....	19,683	556
Ohio .....	E 1,078	36	North .....	15	1
Oklahoma .....	13,125	438	South .....	6,823	227
South Dakota .....	63	2	Total California .....	32,704	1,090
Tennessee .....	79	3	Nevada .....	54	2
<b>Total</b> .....	E 29,665	989	<b>Total</b> .....	81,220	2,707
<b>PAD District III</b>			<b>United States Total</b> .....	E 257,177	8,573
Alabama .....	1,658	55			
Arkansas .....	1,486	50			
Louisiana .....					
Gulf Coast .....	34,076	1,136			
Rest Of State .....	2,937	98			
Total Louisiana .....	37,013	1,234			
Mississippi .....	3,028	101			
New Mexico .....					
Northwestern .....	586	20			
Southeastern .....	5,267	176			
Total New Mexico .....	5,853	195			
Texas .....					
TRRC District 01 .....	2,093	70			
TRRC District 02 .....	3,415	114			
TRRC District 03 .....	9,977	333			
TRRC District 04 .....	2,367	79			
TRRC District 05 .....	694	23			
TRRC District 06, excluding East Texas .....	3,648	122			
TRRC District 07B .....	2,549	85			
TRRC District 07C .....	2,716	91			
TRRC District 08 .....	19,257	642			
TRRC District 08A .....	20,362	679			
TRRC District 09 .....	3,004	100			
TRRC District 10 .....	1,646	55			
East Texas .....	4,542	151			
Total Texas .....	76,270	2,542			
<b>Total</b> .....	125,308	4,177			

<sup>1</sup> Includes offshore production.

(s) Less than 500 barrels or less than 500 barrels per day

Sources: See Explanatory Notes on Data Collection and Estimation

E = Estimated

**Table 12. Offshore Production of Crude Oil (including Lease Condensate) By State for the Most Current Month,<sup>1</sup> November 1981  
(Thousands of Barrels)**

State	Offshore Production	
	Total	Daily Average
Alaska <sup>2</sup> .....	2,173	72
California .....		
Federal .....	2,179	73
State .....	3,302	110
California, Total .....	5,481	183
Louisiana .....		
Federal .....	20,923	697
State .....	2,077	69
Louisiana, Total .....	23,000	767
Texas .....		
Federal .....	1,135	38
State .....	131	4
Texas, Total .....	1,266	42
<b>United States Total .....</b>	<b>31,920</b>	<b>1,064</b>

<sup>1</sup> These production data are included in Table 11.

<sup>2</sup> All offshore production within State boundaries.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

**Table 13. Production of Lease Condensate by State for the Most Current Month,<sup>1</sup> November 1981  
(Thousands of Barrels)**

State	Lease Condensate Production	
	Total	Daily Average
Alabama .....	946	32
California .....	15	1
Louisiana .....	6,022	201
Mississippi .....	193	6
New Mexico .....	438	15
Oklahoma .....	769	26
Texas .....	3,175	106
<b>Total .....</b>	<b>11,558</b>	<b>385</b>

<sup>1</sup> These production data are included in Table 11. Small amounts of lease condensate are known to be produced in states other than those listed, however, statistics on this production are not available.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 14. Natural Gas Processing Plant Production of Petroleum Products by PAD District,<sup>1</sup> January 1982  
(Thousands of Barrels)

Commodity	PAD District I				PAD District II				PAD District III				PAD District IV		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V West Coast
Natural Gas Plant Liquids	582	519	1,101	2	1,295	308	7,799	9,403	17,498	3,427	8,566	714	3,893	34,098	2,213	577	47,391
Isopentane	0	0	0	0	0	0	296	296	306	60	127	0	0	493	2	0	791
Natural Gasoline	83	30	112	0	77	77	1,280	1,435	1,888	236	1,315	116	298	3,853	347	304	6,050
Unfractionated Stream	0	206	206	2	140	23	-2,651	-2,486	7,681	-10,307	489	89	2,482	434	1,102	12	-732
Plant Condensate	0	0	0	0	73	0	26	99	155	603	78	7	1	844	6	0	950
Liquefied Petroleum Gases and Ethane	499	283	783	0	1,004	207	8,847	10,058	7,468	12,835	6,557	502	1,112	28,474	757	261	40,333
Ethane	194	147	341	0	439	0	1,331	1,770	1,009	2,822	2,176	56	86	6,150	16	0	8,277
Propane	193	92	285	0	440	131	3,415	3,986	2,868	4,509	2,298	160	533	10,369	471	166	15,277
Butane	94	29	123	0	84	65	1,496	1,644	1,239	2,115	923	159	279	4,715	263	41	6,787
Butane-Propane Mixtures	0	0	0	0	2	0	0	2	56	1	1	7	0	66	0	34	102
Ethane-Propane Mixtures	0	0	0	0	0	0	2,059	2,059	1,666	2,262	413	9	130	4,480	0	0	6,539
Isobutane	18	16	34	0	39	12	547	598	629	1,124	746	110	85	2,694	7	19	3,351
Finished Motor Gasoline	72	0	72	0	0	0	0	0	23	0	0	0	0	23	4	0	98
Finished Leaded Motor Gasoline	72	0	72	0	0	0	0	0	19	0	0	0	0	19	2	0	94
Finished Unleaded Motor Gasoline	0	0	0	0	0	0	0	0	3	0	0	0	0	3	1	0	4
Gasohol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	53	0	0	0	0	53	0	0	53
Naphtha-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oils	0	0	0	0	0	0	0	0	2	0	0	(s)	2	5	0	0	5
Special Naphthas	0	0	0	0	0	0	1	1	1	0	1	0	0	2	0	0	3
Miscellaneous Products	0	0	0	0	0	0	0	0	35	0	0	0	0	35	0	0	35
Total Production	654	519	1,173	2	1,296	308	7,813	9,419	17,940	3,430	8,567	751	3,895	34,584	2,231	577	47,983
1. Production represents monthly totals.																	

<sup>1</sup> Production represents quantity of natural gas processing plant output less input to fractionating facilities.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 15. Refinery Input of Crude Oil and Petroleum Products by PAD District, January 1982  
(Thousands of Barrels, Except Where Noted)

Commodity	(Thousands of Barrels, Except Where Noted)																
	PAD District I			PAD District II				PAD District III			PAD District IV				United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Dist. IV Rocky Mt.	Dist. V West Coast
Crude Oil (including lease condensate) .....	35,839	3,624	39,463	1,720	52,757	7,203	23,782	85,462	14,403	79,159	59,931	4,692	2,426	160,611	12,855	62,392	360,783
Natural Gas Plant Liquids																	
Natural Gasoline and Isopentane .....	31	2	33	0	453	119	728	1,300	720	1,644	350	81	106	2,901	91	241	4,566
Unfractionated Stream .....	0	0	0	0	0	0	0	0	0	6	0	0	0	6	0	0	6
Plant Condensate .....	0	0	0	0	116	0	19	135	86	653	11	190	2	942	75	10	1,162
LPG and Ethane .....	268	61	329	173	2,636	462	1,190	4,461	750	1,966	2,860	120	61	5,757	580	1,225	12,352
Ethane .....	0	0	0	0	0	0	0	0	0	167	88	0	0	255	1	0	256
Propane .....	0	0	0	0	67	0	18	85	0	0	52	0	0	52	0	0	137
Normal Butane .....	127	54	181	100	1,392	353	600	2,445	345	836	1,256	21	11	2,469	286	399	5,780
Other Butanes .....	0	0	0	0	360	61	145	566	115	226	681	0	0	1,022	246	393	2,227
Butane-Propane Mix .....	0	0	0	0	0	0	0	0	10	59	0	0	0	99	0	74	173
Ethane-Propane Mix .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Isobutane .....	141	7	148	73	817	48	427	1,365	280	678	783	99	20	1,860	47	359	3,779
Other Liquids																	
Other Hydrocarbons .....	91	18	109	0	118	0	0	118	6	453	151	0	0	610	88	360	1,285
Alcohol .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unfinished Oil (net) .....	631	156	787	49	172	-15	6	212	470	3,990	-284	1	63	4,240	-621	-545	4,073
Motor Gasoline Blending Components (net) .....	1,745	-17	1,728	-28	1,617	-365	614	1,838	-588	2,542	1,640	53	-35	3,612	-377	786	7,587
Aviation Gasoline Blending Components (net) .....	0	0	0	0	17	0	0	17	-27	5	-33	0	0	-55	0	14	-24
Total Input to Refineries .....	38,605	3,844	42,449	1,914	57,886	7,404	26,339	93,543	15,820	90,418	64,626	5,137	2,623	178,624	12,691	64,483	391,790
Crude Oil Distillation																	
Gross Input (daily average) .....	1,181	119	1,300	63	1,750	248	779	2,839	499	2,677	1,985	159	86	5,406	421	2,063	12,029
Operable Capacity (daily average) .....	1,663	165	1,828	66	2,529	300	1,150	4,044	653	4,596	2,802	291	123	8,465	631	3,163	18,131
Operating Ratio (percent) <sup>1</sup> .....	71.0	72.1	71.1	94.9	69.2	82.5	67.8	70.2	76.4	58.2	70.8	54.6	69.8	63.9	66.8	65.2	66.3
Crude Oil Qualities																	
Sulfur Content, Weighted Average (percent) .....	1.05	.38	.99	.78	.87	1.58	.42	.81	.76	.94	.82	1.60	.31	.89	.72	1.00	.90
API Gravity, Weighted Average .....	32.43	39.19	33.05	39.20	36.30	30.67	38.25	35.19	38.45	35.03	34.92	33.78	30.85	35.19	36.52	26.00	33.70

<sup>1</sup> Represents gross input divided by operable capacity.  
Note: Total may not equal sum of components due to independent rounding.  
Source: See Explanatory Notes on Data Collection and Estimation.

Table 16. Refinery Production of Petroleum Products by PAD District, January 1982  
(Thousands of Barrels)

Commodity	PAD District I				PAD District II				PAD District III				Total		PAD		
	Appalachian		Total		Appalachian		Total		Appalachian		Total		Total		Dist. IV		United States
	East Coast	#1	#2	Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Rocky Mt.	West Coast	Coast	Dist. V	Coast	
Liquefied Petroleum Gases and Ethane	1,209	83	1,292	33	1,273	299	276	1,881	323	1,850	1,251	86	40	3,550	129	738	7,590
For Petrochemical Feedstock Use	444	0	444	0	162	7	73	242	21	1,098	167	0	0	1,286	-7	213	2,178
For Other Uses	765	83	848	33	1,111	292	203	1,639	302	752	1,084	86	40	2,264	136	525	5,412
Ethane	0	0	0	0	15	0	0	15	0	158	11	0	0	169	0	0	184
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	158	11	0	0	169	0	0	169
For Other Uses	0	0	0	0	15	0	0	15	0	0	0	0	0	0	0	0	15
Propane	1,046	83	1,129	33	1,256	292	480	2,061	304	1,773	1,183	75	30	3,365	137	828	7,520
For Petrochemical Feedstock Use	378	0	378	0	162	0	73	235	0	813	98	0	0	911	1	144	1,669
For Other Uses	668	83	751	33	1,094	292	407	1,826	304	960	1,085	75	30	2,454	136	684	5,851
Butane	163	0	163	0	2	7	-204	-195	-2	-125	114	8	3	-2	15	-118	-137
For Petrochemical Feedstock Use	66	0	66	0	0	0	0	7	0	126	56	0	0	182	0	69	324
For Other Uses	97	0	97	0	2	0	-204	-202	-2	-251	58	8	3	-184	15	-187	-461
Butane-Propane Mixtures	0	0	0	0	0	0	0	0	0	7	43	3	7	3	-15	28	16
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
For Other Uses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Isobutane for Petro. Feed. Use	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Isobutane for Petro. Feed. Use	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	19,183	1,421	20,604	1,143	33,931	3,813	15,060	53,947	7,862	40,173	30,523	1,901	1,071	81,530	6,576	28,870	191,527
Finished Leaded Motor Gasoline	8,481	865	9,346	634	14,611	1,849	8,640	25,734	4,239	17,022	15,643	1,365	722	38,991	4,316	13,666	92,053
Finished Unleaded Motor Gasoline	10,702	556	11,258	509	19,309	1,964	6,413	28,195	3,623	23,151	14,880	536	349	42,539	2,259	15,114	99,365
Gasohol	0	0	0	0	11	0	7	18	0	0	0	0	0	0	0	0	109
Finished Aviation Gasoline	5	0	5	0	138	0	16	154	3	142	76	0	0	221	22	191	593
Naphtha-Type Jet Fuel	424	61	485	0	352	84	336	772	481	861	420	131	338	2,231	318	931	4,737
Kerosene-Type Jet Fuel	1,359	84	1,443	143	2,334	70	719	3,266	708	4,459	6,300	19	43	11,529	432	6,396	23,066
Kerosene	352	97	449	0	1,001	15	-12	1,004	35	1,527	1,002	2	65	2,631	108	218	4,410
Distillate Fuel Oil	7,399	961	8,360	323	11,128	1,939	6,811	20,201	3,429	21,249	11,595	1,367	778	38,418	3,274	10,797	81,050
Distillate Fuel Oil Less No. 4	7,399	924	8,323	323	11,092	1,939	6,811	20,165	3,420	20,939	11,583	1,299	549	37,790	3,245	10,720	80,243
No. 4 Fuel Oil	0	37	37	0	36	0	0	36	9	310	12	68	229	628	29	77	807
Residual Fuel Oil	5,918	363	6,281	176	3,083	407	719	4,385	894	7,146	5,985	459	150	14,634	526	10,847	36,673
Naphtha < 400 Deg. Petro. Feedstock	331	0	331	0	201	0	34	235	454	3,089	250	27	0	3,820	5	192	4,583
Other Oils > 400 Deg. Petro. Feedstock	7	67	74	0	1,371	0	0	1,371	359	3,966	2,709	43	0	7,077	0	235	8,757
Special Naphthas	6	12	18	0	170	0	127	297	111	549	72	164	0	896	2	111	1,324
Lubricants	109	420	529	0	405	0	374	779	17	1,847	561	170	-1	2,594	41	331	4,274
Bright Stock	6	185	191	0	22	0	58	80	0	149	40	0	0	189	5	24	489
Neutral	57	225	282	0	285	0	282	567	0	1,032	428	82	0	1,542	35	235	2,661
Other Grades	46	10	56	0	98	0	34	132	17	666	93	88	-1	863	1	72	1,124
Wax	18	81	99	0	-1	0	25	24	84	87	64	24	0	259	17	57	456
Microcrystalline	1	20	21	0	0	0	24	24	84	10	0	24	0	118	0	0	163
Crystalline-Fully Refined	8	13	21	0	-3	0	-4	-7	0	51	64	0	0	115	17	33	179
Crystalline-Other	9	48	57	0	2	0	5	7	0	26	0	0	0	26	0	24	114
Petroleum Coke	1,126	32	1,158	22	1,863	337	884	3,106	301	2,330	1,468	147	9	4,255	330	3,253	12,102
Marketable	396	0	396	0	1,017	213	462	1,692	53	1,010	829	126	0	2,018	186	2,387	6,679
Catalyst	730	32	762	22	846	124	422	1,414	248	1,320	639	21	9	2,237	144	866	5,423
Asphalt	764	45	809	69	694	576	539	1,878	420	429	944	464	69	2,326	494	1,014	6,521
Road Oil	0	0	0	0	-9	0	4	-5	0	0	0	0	0	0	0	0	3
Still Gas	1,613	158	1,771	63	2,200	249	950	3,472	411	3,831	2,373	161	51	6,827	529	3,186	15,785
For Petrochemical Feedstock Use	53	0	53	0	1	0	0	1	5	358	31	0	0	394	16	7	471
For Other Uses	1,560	158	1,718	63	2,199	249	960	3,471	406	3,473	2,342	161	51	6,433	513	3,179	15,314
Miscellaneous Products	390	32	422	2	58	19	60	139	190	1,298	810	18	0	2,316	20	255	3,152
<b>Total Output</b>	40,213	3,917	44,130	1,974	60,192	7,808	26,932	96,906	16,082	94,833	66,403	5,183	2,613	185,114	12,824	67,629	406,603
<b>Processing Gain(-) or Loss(+)</b>	-1,608	-73	-1,681	-60	-2,306	-404	-593	-3,363	-262	-4,415	-1,777	-46	10	-6,490	-133	-3,146	-14,813

1 Represents the arithmetic difference between input and output.  
Notes: Total may not equal sum of components due to independent rounding.  
See Explanatory Notes on negative product yield.  
Source: See Explanatory Notes on Data Collection and Estimation.

Table 17. Percent Refinery Yield of Petroleum Products by PAD District,<sup>1</sup> January 1982

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Dist. IV Rocky Mt.	Dist. V West Coast
Finished Motor Gasoline <sup>2</sup>	46.7	35.9	45.7	56.4	54.8	50.0	52.6	46.3	39.6	42.8	31.0	37.6	41.1	50.0	42.4	45.1
Finished Aviation Gasoline <sup>3</sup>	(s)	.0	(s)	.0	.2	.0	.1	.2	.2	.2	.0	.0	.2	.2	.3	.2
Liquefied Refinery Gases & Ethane	3.3	2.2	3.2	1.9	2.4	4.2	1.2	2.2	2.0	2.1	1.8	1.6	2.1	1.1	1.2	2.0
Naphtha-Type Jet Fuel	1.2	1.6	1.2	0	.7	1.2	1.4	9	3.2	1.0	2.8	13.6	1.4	2.6	1.5	1.3
Kerosene-Type Jet Fuel	3.7	2.2	3.6	8.1	4.4	1.0	3.8	4.8	5.4	10.6	.4	1.7	7.0	3.5	10.3	6.3
Kerosene	1.0	2.6	1.1	0	1.9	.2	-1	.2	1.8	1.7	(s)	2.6	1.6	.9	.4	1.2
Distillate Fuel Oil	20.3	25.4	20.8	18.3	21.0	27.0	28.6	23.1	25.6	19.4	29.1	31.3	23.3	26.8	17.5	22.2
Residual Fuel Oil	16.2	9.6	15.6	9.9	5.8	5.7	3.0	6.0	8.6	10.0	9.8	6.0	8.9	4.3	17.5	10.1
Ethane	0	0	0	0	(s)	0	0	0	.2	(s)	0	0	.1	0	0	.1
Naphtha < 400 Deg. F. Petrochem.	.9	0	.8	0	.4	0	.1	3.1	3.7	.4	.6	0	2.3	(s)	.3	1.3
Feedstock Use	(s)	1.8	.2	0	2.6	0	0	2.4	4.8	4.5	.9	0	4.3	0	.4	2.4
Other Oils > 400 Deg. F. Petrochem.	(s)	.3	(s)	.0	.3	0	.5	.7	.7	.1	3.5	0	.5	(s)	.2	.4
Feedstock Use	(s)	11.1	1.3	0	.8	0	1.6	.9	2.2	.9	3.6	(s)	1.6	.3	.5	1.2
Special Naphthas	.3	2.1	.2	0	(s)	0	.1	.6	.1	.1	.5	0	.2	.1	.1	.1
Lubricants	(s)	2.1	.2	0	(s)	0	0	0	0	0	0	0	0	0	0	0
Wax	3.1	.8	2.9	1.2	3.5	4.7	3.7	2.0	2.8	2.5	3.1	.4	2.6	2.7	5.3	3.3
Petroleum Coke	2.1	1.2	2.0	3.9	1.3	8.0	2.3	2.2	.5	1.6	9.9	2.8	1.4	4.0	1.6	1.8
Asphalt	0	0	0	0	(s)	0	(s)	0	0	0	.0	0	0	(s)	(s)	(s)
Road Oil Petrochemical Feedstock	.1	0	.1	0	(s)	0	0	(s)	.4	.1	0	0	.2	.1	(s)	.1
Still Gas for Petrochem. Feedstock	4.3	4.2	4.3	3.6	4.2	3.5	4.0	2.7	4.2	3.9	3.4	2.0	3.9	4.2	5.1	4.2
Still Gas for Fuel	1.1	.8	1.0	.1	.1	.3	.3	1.3	1.6	1.4	.4	0	1.4	.2	.4	.9
Miscellaneous Products																
Processing Gain(-) or Loss(+) <sup>4</sup>	-4.4	-1.9	-4.2	-3.4	-4.4	-5.6	-2.5	-1.8	-5.3	-3.0	-1.0	.4	-3.9	-1.1	-5.1	-4.1

<sup>1</sup> Based on crude oil input and net reruns of unfinished oils.<sup>2</sup> Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas liquids, other hydrocarbons and alcohol.<sup>3</sup> Based on finished aviation gasoline output plus net output of aviation gasoline blending components.<sup>4</sup> Represents the arithmetic difference between Input and Production.

(s) Less than 0.05 percent.

Note: Total may not equal sum of components due to independent rounding.

See Explanatory Notes on negative product yields.

Source: See Explanatory Notes on Data Collection and Estimation.

**Table 18. Refinery Receipts of Crude Oil by PAD District, January 1982**  
(Thousands of Barrels)

Method	PAD District I			PAD District II					PAD District III					PAD District IV			United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Dist. IV Rocky Mt.	Dist. V West Coast	
Pipeline																	
Domestic .....	0	2,331	2,331	1,219	38,329	3,043	20,370	62,961	12,237	50,244	29,334	3,233	1,812	96,860	11,057	26,610	199,819
Foreign .....	0	602	602	520	13,425	4,146	2,450	20,541	800	4,414	3,194	981	0	9,389	994	561	32,087
Tanker																	
Domestic .....	3,654	0	3,654	0	0	0	0	0	0	1,583	5,452	0	0	7,035	0	27,714	38,403
Foreign .....	26,131	0	26,131	0	0	0	0	0	0	24,435	16,728	0	0	41,163	0	6,240	73,534
Barge																	
Domestic .....	0	151	151	0	880	0	0	880	0	3,960	4,473	106	0	8,539	0	0	9,570
Foreign .....	4,101	0	4,101	0	530	0	0	530	0	51	627	89	0	767	0	0	5,398
Tank Cars																	
Domestic .....	69	237	306	0	0	0	0	0	0	0	0	16	0	16	0	0	322
Trucks																	
Domestic .....	0	246	246	26	291	12	823	1,152	1,161	346	610	913	544	3,574	945	1,289	7,206
Foreign .....	0	0	0	0	0	0	0	0	170	0	0	0	0	170	1	0	171
Total																	
Domestic .....	3,723	2,965	6,688	1,245	39,500	3,055	21,193	64,993	13,398	56,133	39,869	4,268	2,356	116,024	12,002	55,613	255,320
Foreign .....	30,232	602	30,834	520	13,955	4,146	2,450	21,071	970	28,900	20,549	1,070	0	51,489	995	6,801	111,190

Table 20. Imports of Crude Oil and Petroleum Products by PAD District, January 1982  
(Thousands of Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
<b>Crude Oil (including Lease Condensate) <sup>1 2</sup></b>	<b>28,693</b>	<b>16,799</b>	<b>57,724</b>	<b>2,677</b>	<b>7,189</b>	<b>113,083</b>
<b>Natural Gas Liquids</b>	<b>995</b>	<b>6,381</b>	<b>1,339</b>	<b>649</b>	<b>810</b>	<b>10,173</b>
Natural Gasoline and Isopentane	0	0	312	0	0	312
Plant Condensate	0	0	0	129	10	139
Liquefied Petroleum Gases and Ethane	995	6,381	1,027	519	800	9,722
Ethane	0	1,823	0	0	0	1,823
Propane	606	1,543	531	299	100	3,079
Butane	389	1,167	0	220	701	2,476
Butane-Propane Mix	0	0	496	0	0	496
Ethane-Propane Mix	0	1,848	0	0	0	1,848
<b>Other Liquids <sup>1</sup></b>	<b>1,924</b>	<b>765</b>	<b>2,413</b>	<b>27</b>	<b>360</b>	<b>5,488</b>
Unfinished Oils <sup>1</sup>	1,715	320	1,879	0	220	4,134
Motor Gasoline Blending Components	209	445	533	27	139	1,354
<b>Finished Petroleum Products</b>	<b>29,945</b>	<b>185</b>	<b>2,175</b>	<b>(s)</b>	<b>1,155</b>	<b>33,460</b>
Finished Motor Gasoline	2,753	2	236	0	553	3,544
Finished Leaded Motor Gasoline	1,146	0	(s)	0	269	1,415
Finished Unleaded Motor Gasoline	1,607	2	236	0	283	2,128
Finished Aviation Gasoline	0	0	0	0	0	0
Finished Aviation Jet Fuel	101	0	0	0	0	101
Naphtha-Type Jet Fuel	187	0	0	0	31	217
Kerosene-Type Jet Fuel	88	0	0	0	31	119
Bonded Aircraft Fuel	98	0	0	0	0	98
Other	710	0	0	0	0	710
Kerosene	2,808	0	2	(s)	163	2,973
Distillate Fuel Oil	0	0	0	0	0	0
Bonded ships bunkers	0	0	0	0	0	0
For military offshore use	0	0	0	0	0	0
No. 2 fuel oil	2,785	0	2	(s)	163	2,950
No. 4 fuel oil	24	0	0	0	0	24
Residual Fuel Oil	23,169	117	1,818	0	336	25,440
Bonded ships bunkers	0	0	0	0	0	0
For military offshore use	55	0	0	0	0	55
Other	23,114	117	1,818	0	336	25,385
Naphtha < 400 Deg. for Petrochem. Feedstock	37	0	100	0	60	198
Other Oils > 400 Deg. for Petrochem. Feedstock	0	0	0	0	0	0
Special Naphthas	11	55	14	0	12	92
Lubricants	167	(s)	(s)	(s)	(s)	168
Wax	(s)	5	5	0	1	11
Asphalt	1	0	0	0	0	1
Miscellaneous Products	1	6	0	0	(s)	7
<b>Total Imports</b>	<b>61,557</b>	<b>24,129</b>	<b>63,651</b>	<b>3,354</b>	<b>9,514</b>	<b>162,205</b>

<sup>1</sup> Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

<sup>2</sup> Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, January 1982  
(Thousands of Barrels)

Source	Crude Oil 1	LPG and Ethane	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
All PAD Districts														
<b>Arab OPEC</b>														
Algeria	6,231	209	0	0	0	0	0	0	1,431	0	0	1,640	7,871	254
Libya	4,706	0	271	0	0	0	0	0	0	0	0	0	4,977	161
Saudi Arabia	26,895	291	0	0	0	0	0	0	0	0	0	291	27,185	877
United Arab Emirates	1,840	0	0	533	0	0	0	0	0	0	312	846	2,686	87
Subtotal Arab OPEC	39,671	499	271	533	0	0	0	0	1,431	0	312	3,047	42,718	1,378
<b>Other OPEC</b>														
Ecuador	1,596	0	0	0	0	0	0	0	310	0	0	310	1,906	61
Gabon	2,059	0	0	0	0	0	0	0	0	0	0	0	2,059	66
Indonesia	7,190	530	0	0	278	0	0	83	390	0	0	1,280	8,470	273
Nigeria	19,944	0	0	0	0	0	0	1	590	0	0	591	20,535	662
Venezuela	2,374	0	811	0	0	0	0	0	8,475	0	0	9,286	11,660	376
Subtotal Other OPEC	33,163	530	811	0	278	0	0	83	9,765	0	0	11,467	44,629	1,440
<b>Other</b>														
Angola	2,153	0	0	0	0	0	0	0	0	0	0	0	2,153	69
Australia	0	43	0	0	0	0	0	0	0	0	0	43	43	1
Bahamas	0	0	261	0	0	0	0	151	452	0	0	864	864	28
Brazil	0	0	0	0	0	0	0	0	349	0	0	349	349	11
Brunei	0	0	0	0	47	0	0	38	59	0	0	143	143	5
Canada	5,925	8,038	49	612	252	1	0	239	436	74	155	9,855	15,780	509
Egypt	987	0	0	0	0	0	0	0	0	0	0	0	987	32
France	0	0	0	209	0	0	0	0	0	0	(s)	209	209	7
Malaysia	825	0	0	0	0	0	0	0	0	0	0	0	825	27
Mexico	11,079	496	0	0	(s)	0	0	9	1,626	0	5	2,136	13,215	426
Netherlands	0	0	0	0	297	0	0	0	210	0	0	507	507	16
Netherlands Antilles	0	0	387	0	0	119	0	235	4,793	0	0	5,534	5,534	179
Norway	2,742	0	0	0	0	0	0	(s)	0	0	0	(s)	2,742	88
Oman	447	0	0	0	0	0	0	0	0	0	0	0	447	14
People's Republic of China	0	0	0	0	173	0	0	0	0	0	0	173	173	6
Peru	614	0	0	0	0	0	0	0	239	0	0	239	853	28
Puerto Rico	0	0	626	0	547	101	0	348	0	0	302	1,924	1,924	62
Romania	0	0	0	0	236	0	0	0	0	0	0	236	236	8
Trinidad and Tobago	2,784	0	220	0	0	0	0	0	279	0	0	499	3,282	106
Tunisia	472	0	0	0	0	0	0	0	0	0	0	0	472	15
United Kingdom	10,262	116	341	0	0	0	0	0	0	0	(s)	458	10,720	346
Virgin Islands	0	0	1,105	0	1,659	98	710	1,835	4,946	0	0	10,353	10,353	334
Zaire	646	0	0	0	0	0	0	0	0	0	0	0	646	21
Other Western Hemisphere	129	0	63	0	0	0	0	0	414	0	0	477	606	20
Other Eastern Hemisphere	1,183	0	0	0	55	0	0	35	441	18	60	609	1,793	58
Subtotal Other	40,249	8,693	3,052	821	3,265	318	710	2,890	14,244	92	523	34,608	74,857	2,415
<b>Total Imports</b>	<b>113,083</b>	<b>9,722</b>	<b>4,134</b>	<b>1,354</b>	<b>3,544</b>	<b>318</b>	<b>710</b>	<b>2,973</b>	<b>25,440</b>	<b>92</b>	<b>835</b>	<b>49,122</b>	<b>162,205</b>	<b>5,232</b>

See footnotes at end of table.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, January 1982  
(Thousands of Barrels) (continued)

Source	Crude Oil 1	LPG and Ethane	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
PAD I														
<b>Arab OPEC</b>														
Algeria .....	3,218	209	0	0	0	0	0	0	1,431	0	0	1,640	4,858	157
Saudi Arabia .....	8,304	291	0	0	0	0	0	0	0	0	0	291	8,595	277
Subtotal Arab OPEC .....	11,522	499	0	0	0	0	0	0	1,431	0	0	1,930	13,452	434
<b>Other OPEC</b>														
Ecuador .....	0	0	0	0	0	0	0	0	310	0	0	310	310	10
Gabon .....	1,608	0	0	0	0	0	0	0	0	0	0	0	1,608	52
Indonesia .....	1,309	0	0	0	0	0	0	0	390	0	0	390	1,699	55
Nigeria .....	7,678	0	0	0	0	0	0	0	0	0	0	0	7,678	248
Venezuela .....	846	0	247	0	0	0	0	0	8,072	0	0	8,319	9,165	296
Subtotal Other OPEC .....	11,442	0	247	0	0	0	0	0	8,772	0	0	9,019	20,461	660
<b>Other</b>														
Angola .....	1,319	0	0	0	0	0	0	0	0	0	0	0	1,319	43
Bahamas .....	0	0	0	0	0	0	0	151	452	0	0	602	602	19
Brazil .....	0	0	0	0	0	0	0	0	349	0	0	349	349	11
Canada .....	0	379	(s)	0	250	1	0	239	302	7	4	1,181	1,181	38
France .....	0	0	0	209	0	0	0	0	0	0	(s)	209	209	7
Mexico .....	180	0	0	0	0	0	0	0	700	0	0	700	880	28
Netherlands .....	0	0	0	0	297	0	0	0	210	0	0	507	507	16
Netherlands Antilles .....	0	0	387	0	0	88	0	235	4,793	0	0	5,504	5,504	178
Norway .....	1,536	0	0	0	0	0	0	0	0	0	0	0	1,536	50
Oman .....	447	0	0	0	0	0	0	0	0	0	0	0	447	14
Peru .....	402	0	0	0	0	0	0	0	237	0	0	237	640	21
Puerto Rico .....	0	0	626	0	547	101	0	348	0	0	201	1,823	1,823	59
Trinidad and Tobago .....	487	0	0	0	0	0	0	0	279	0	0	279	766	25
United Kingdom .....	1,357	116	0	0	0	0	0	0	0	0	(s)	117	1,474	48
Virgin Islands .....	0	0	455	0	1,659	98	710	1,835	4,946	0	0	9,703	9,703	313
Other Western Hemisphere .....	0	0	0	0	0	0	0	0	414	0	0	414	414	13
Other Eastern Hemisphere .....	0	0	1,468	203	2,753	287	710	2,808	284	5	(s)	288	288	9
Subtotal Other .....	5,729	495	1,468	203	2,753	287	710	2,808	12,966	11	205	21,914	27,643	892
<b>Total Imports .....</b>	<b>28,693</b>	<b>995</b>	<b>1,715</b>	<b>209</b>	<b>2,753</b>	<b>287</b>	<b>710</b>	<b>2,808</b>	<b>23,169</b>	<b>11</b>	<b>205</b>	<b>32,863</b>	<b>61,557</b>	<b>1,986</b>
PAD II														
<b>Arab OPEC</b>														
Algeria .....	960	0	0	0	0	0	0	0	0	0	0	0	960	31
Libya .....	1,909	0	271	0	0	0	0	0	0	0	0	271	2,180	70
Saudi Arabia .....	2,083	0	0	0	0	0	0	0	0	0	0	0	2,083	67
United Arab Emirates .....	98	0	0	0	0	0	0	0	0	0	0	0	98	3
Subtotal Arab OPEC .....	5,050	0	271	0	0	0	0	0	0	0	0	271	5,321	172
<b>Other OPEC</b>														
Gabon .....	449	0	0	0	0	0	0	0	0	0	0	0	449	14
Nigeria .....	2,853	0	0	0	0	0	0	0	0	0	0	0	2,853	92
Subtotal Other OPEC .....	3,302	0	0	0	0	0	0	0	0	0	0	0	3,302	107

See footnotes at end of table.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, January 1982  
(Thousands of Barrels) (continued)

Source	Crude Oil 1	LPG and Ethane	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Napthtas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD II														
<b>Other</b>														
Canada .....	4,512	6,381	49	445	2	0	0	0	117	55	11	7,059	11,571	373
Egypt .....	451	0	0	0	0	0	0	0	0	0	0	0	451	15
France .....	0	0	0	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Mexico .....	903	0	0	0	0	0	0	0	0	0	0	0	903	29
Trinidad and Tobago .....	604	0	0	0	0	0	0	0	0	0	0	0	604	19
United Kingdom .....	1,756	0	0	0	0	0	0	0	0	0	0	0	1,756	57
Other Eastern Hemisphere .....	221	0	0	0	0	0	0	0	0	0	0	0	221	7
Subtotal Other .....	8,446	6,381	49	445	2	0	0	0	117	55	11	7,059	15,506	500
<b>Total imports .....</b>	<b>16,799</b>	<b>6,381</b>	<b>320</b>	<b>445</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>117</b>	<b>55</b>	<b>11</b>	<b>7,330</b>	<b>24,129</b>	<b>778</b>
PAD III														
<b>Arab OPEC</b>														
Algeria .....	2,052	0	0	0	0	0	0	0	0	0	0	0	2,052	66
Libya .....	971	0	0	0	0	0	0	0	0	0	0	0	971	31
Saudi Arabia .....	16,149	0	0	0	0	0	0	0	0	0	0	0	16,149	521
United Arab Emirates .....	1,742	0	0	533	0	0	0	0	0	0	312	846	2,587	83
Subtotal Arab OPEC .....	20,914	0	0	533	0	0	0	0	0	0	312	846	21,760	702
<b>Other OPEC</b>														
Ecuador .....	1,065	0	0	0	0	0	0	0	0	0	0	0	1,065	34
Gabon .....	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
Indonesia .....	552	530	0	0	0	0	0	0	0	0	0	530	1,081	35
Nigeria .....	9,413	0	0	0	0	0	0	1	590	0	0	591	10,003	323
Venezuela .....	1,528	0	564	0	0	0	0	0	403	0	0	967	2,495	80
Subtotal Other OPEC .....	12,558	530	564	0	0	0	0	1	993	0	0	2,087	14,645	472
<b>Other</b>														
Angola .....	834	0	0	0	0	0	0	0	0	0	0	0	834	27
Bahamas .....	0	0	261	0	0	0	0	0	0	0	0	261	261	8
Canada .....	0	1	0	0	0	0	0	0	0	0	0	1	1	(s)
Egypt .....	536	0	0	0	0	0	0	0	0	0	0	0	536	17
France .....	0	0	0	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Malaysia .....	417	0	0	0	0	0	0	0	0	0	0	0	417	13
Mexico .....	9,997	496	0	0	(s)	0	0	1	825	0	5	1,328	11,324	365
Norway .....	1,205	0	0	0	0	0	0	(s)	0	0	0	(s)	1,206	39
Peru .....	211	0	0	0	0	0	0	0	0	0	0	0	211	7
Puerto Rico .....	0	0	0	0	0	0	0	0	0	0	0	0	100	3
Romania .....	0	0	0	0	0	0	0	0	0	0	100	100	100	8
Trinidad and Tobago .....	1,693	0	0	0	236	0	0	0	0	0	0	236	1,693	55
Tunisia .....	472	0	0	0	0	0	0	0	0	0	0	0	472	15
United Kingdom .....	7,149	0	341	0	0	0	0	0	0	0	0	341	7,490	242
Virgin Islands .....	0	0	650	0	0	0	0	0	0	0	0	650	650	21
Zaire .....	646	0	0	0	0	0	0	0	0	0	0	0	646	21
<b>Other Western Hemisphere</b>														
Hemisphere .....	129	0	63	0	0	0	0	0	0	0	0	63	192	6
Other Eastern Hemisphere .....	962	0	0	0	0	0	0	0	0	14	0	14	976	31
Subtotal Other .....	24,252	498	1,315	0	236	0	0	1	825	14	106	2,995	27,246	879

See footnotes at end of table.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, January 1982  
(Thousands of Barrels) (continued)

Source	Crude Oil 1	LPG and Ethane	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
PAD III														
Other														
Total Imports .....	57,724	1,027	1,879	533	236	0	0	2	1,818	14	418	5,927	63,651	2,053
PAD IV														
Arab OPEC														
Libya .....	1,825	0	0	0	0	0	0	0	0	0	0	0	1,825	59
Subtotal Arab OPEC .....	1,825	0	0	0	0	0	0	0	0	0	0	0	1,825	59
Other														
Canada .....	852	519	0	27	0	0	0	(s)	0	0	129	676	1,528	49
Subtotal Other .....	852	519	0	27	0	0	0	(s)	0	0	129	676	1,528	49
Total Imports .....	2,677	519	0	27	0	0	0	(s)	0	0	129	676	3,354	108
PAD V														
Arab OPEC														
Saudi Arabia .....	359	0	0	0	0	0	0	0	0	0	0	0	359	12
Subtotal Arab OPEC .....	359	0	0	0	0	0	0	0	0	0	0	0	359	12
Other OPEC														
Ecuador .....	531	0	0	0	0	0	0	0	0	0	0	0	531	17
Indonesia .....	5,330	0	0	0	278	0	0	83	0	0	0	361	5,690	184
Subtotal Other OPEC .....	5,860	0	0	0	278	0	0	83	0	0	0	361	6,221	201
Other														
Australia .....	0	43	0	0	0	0	0	0	0	0	0	43	43	1
Brunei .....	0	0	0	0	47	0	0	38	59	0	0	143	143	5
Canada .....	561	758	0	139	0	0	0	(s)	17	12	10	937	1,498	48
France .....	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Malaysia .....	408	0	0	0	0	0	0	0	0	0	0	0	408	13
Mexico .....	0	0	0	0	0	0	0	8	100	0	0	108	108	3
Netherlands Antilles .....	0	0	0	0	0	0	0	0	0	0	0	31	31	1
People's Republic of China .....	0	0	0	0	173	0	0	0	0	0	0	173	173	6
Peru .....	0	0	0	0	0	0	0	0	2	0	0	2	2	(s)
Trinidad and Tobago .....	0	0	220	0	0	0	0	0	0	0	0	220	220	7
Other Eastern Hemisphere .....	0	0	0	0	55	0	0	35	157	0	60	307	307	10
Subtotal Other .....	970	800	220	139	274	31	0	80	336	12	71	1,964	2,934	95
Total Imports .....	7,189	800	220	139	553	31	0	163	336	12	71	2,325	9,514	307

1 Includes crude oil imported for storage in the Strategic Petroleum Reserve.

2 Includes aviation gasoline, waxes, asphalt, lubricants, natural gasoline, isopentane, plant condensate, naphthas less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 22. Exports of Crude Oil and Petroleum Products by PAD District, January 1982  
(Thousands of Barrels)

Commodity	Petroleum Administration for Defense Districts					Total
	I	II	III	IV	V	
Crude Oil (including Lease Condensate) <sup>1</sup>	0	1,348	0	0	6,035	7,383
Liquefied Petroleum Gases and Ethane						
Ethane	40	960	894	0	196	2,091
Propane	(s)	0	0	0	0	(s)
Butane	21	382	296	0	79	777
Butane-Propane Mixtures	19	579	599	0	117	1,314
Finished Motor Gasoline	0	0	0	0	0	0
Naphtha-Type Jet Fuel	(s)	0	70	0	491	562
Kerosene-Type Jet Fuel	(s)	0	0	0	0	(s)
Kerosene	1	0	227	0	27	255
Distillate Fuel Oil	(s)	(s)	(s)	0	250	251
Residual Fuel Oil	207	(s)	1,568	0	1,019	2,793
Naphtha < 400 Deg. for Petro. Feed. Use	493	0	5,199	0	1,593	7,285
Other Oils > 400 Deg. for Petro. Feed. Use	34	9	35	0	8	85
Special Naphthas	1	0	734	0	402	1,138
Lubricants	3	5	79	0	2	89
Wax	86	10	251	(s)	46	395
Petroleum Coke	4	1	11	(s)	5	21
Asphalt	87	94	1,493	(s)	1,608	3,282
Miscellaneous Products	1	1	1	(s)	2	6
Total Product Exports	16	1	39	(s)	4	59
	973	1,082	10,603	1	5,652	18,310
Total Exports	973	2,430	10,603	1	11,687	25,693

<sup>1</sup> Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange on a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 23. Exports of Crude Oil and Petroleum Products by Destination, January 1982  
(Thousands of Barrels)

Destination	Crude Oil 1	LPG and Ethane	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Wax	Petro-leum Coke	Asphalt	Other	Total	Total (Daily Average)
Argentina	0	0	0	0	0	0	(s)	18	(s)	50	0	(s)	68	2
Australia	0	10	0	0	0	0	10	11	(s)	2	(s)	2	35	1
Bahamas	0	(s)	(s)	1	0	300	0	2	0	0	0	(s)	303	10
Bahrain	0	1	0	0	0	0	0	(s)	0	0	0	1	2	(s)
Belgium & Luxembourg	0	(s)	0	0	0	0	1	2	(s)	471	0	1	474	15
Brazil	0	35	0	0	0	0	(s)	(s)	(s)	0	0	4	39	1
Canada	1,348	964	0	0	(s)	416	3	48	2	134	2	23	2,941	95
Chile	0	(s)	0	0	0	0	(s)	2	(s)	0	(s)	(s)	2	(s)
China (Taiwan)	0	(s)	0	0	0	0	0	7	(s)	1	0	1	9	(s)
Colombia	0	3	0	0	0	0	(s)	11	(s)	(s)	0	3	17	1
Costa Rica	0	(s)	0	0	0	0	(s)	1	(s)	0	(s)	(s)	1	(s)
Denmark	0	(s)	0	0	0	0	(s)	(s)	(s)	0	0	(s)	(s)	(s)
Dominican Republic	0	0	0	0	0	0	0	(s)	(s)	0	0	(s)	(s)	(s)
Ecuador	0	0	0	0	94	0	(s)	(s)	(s)	0	0	2	96	3
Egypt	0	0	0	0	0	0	(s)	1	(s)	0	0	0	1	(s)
El Salvador	0	(s)	0	0	0	0	(s)	0	0	0	0	(s)	1	(s)
Finland	0	0	0	0	0	0	0	(s)	0	0	0	(s)	1	(s)
France	0	77	0	0	0	236	0	1	2	45	(s)	279	639	21
French Pacific Isl	0	0	29	0	72	0	0	1	0	0	0	2	104	3
Ghana	0	0	0	0	0	0	0	0	0	55	0	0	55	2
Greece	0	0	0	0	0	0	0	1	0	136	0	(s)	140	5
Guatemala	0	(s)	0	0	0	0	(s)	4	(s)	0	(s)	(s)	4	(s)
Honduras	0	(s)	35	0	65	0	0	(s)	(s)	0	0	(s)	101	3
Hong Kong	0	1	0	0	0	7	(s)	1	0	0	(s)	1	10	(s)
India	0	(s)	0	0	0	0	(s)	32	(s)	0	(s)	1	33	1
Indonesia	0	0	0	0	0	0	0	11	(s)	0	0	1	13	(s)
Iran	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Israel	0	0	0	0	0	0	(s)	4	(s)	0	0	(s)	5	(s)
Italy	0	2	0	0	0	306	8	13	(s)	399	0	154	881	28
Ivory Coast	0	0	0	0	0	0	0	0	0	1	0	0	1	(s)
Jamaica	0	(s)	0	0	0	0	60	(s)	(s)	0	(s)	(s)	61	2
Japan	0	8	0	227	486	367	4	9	3	586	(s)	254	1,945	63
Jordan	0	0	0	(s)	0	0	0	1	0	0	0	(s)	1	(s)
Korea, Republic of	0	0	0	0	0	810	(s)	1	(s)	1	0	61	873	28
Kuwait	0	0	0	0	0	0	0	(s)	0	0	0	(s)	1	(s)
Lebanon	0	0	0	0	0	0	0	2	0	0	0	0	2	(s)
Liberia	0	(s)	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Malaysia	0	0	0	0	0	0	0	(s)	0	0	0	(s)	1	(s)
Mexico	0	809	463	27	75	0	1	64	2	39	1	7	1,487	48
Netherlands	0	154	0	0	899	2,455	(s)	11	(s)	288	(s)	219	4,027	130
Netherlands Antilles	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
New Zealand	0	0	0	0	0	0	0	(s)	(s)	0	0	1	2	(s)
Nicaragua	0	(s)	0	0	0	0	0	17	0	0	0	0	(s)	1
Nigeria	0	0	0	0	0	0	0	1	0	148	0	(s)	581	19
Norway	0	0	0	0	0	0	0	0	0	0	0	(s)	1	(s)
Pacific Trust Terr.	0	0	0	0	0	0	0	0	0	0	1	(s)	266	9
Panama	0	2	0	0	255	0	(s)	8	(s)	0	0	1	2	(s)
Peru	0	0	0	0	0	0	0	1	(s)	(s)	0	1	74	2
Philippines	0	0	0	0	0	0	(s)	7	(s)	(s)	(s)	66	2,199	71
Puerto Rico	1,848	0	0	0	0	332	(s)	11	1	(s)	0	3	236	8
Rep. of South Africa	0	0	0	0	0	0	(s)	1	5	84	(s)	145	236	8
Saudi Arabia	0	(s)	0	0	0	0	(s)	19	0	1	(s)	4	25	1

See footnotes at end of table.

Table 23. Exports of Crude Oil and Petroleum Products by Destination, January 1982  
(Thousands of Barrels) (continued)

Destination	Crude Oil 1	LPG and Ethane	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Wax	Petroleum Coke	Asphalt	Other	Total	Total (Daily Average)
Singapore .....	0	0	0	0	0	239	0	6	(s)	0	(s)	1	247	8
Spain .....	0	(s)	0	0	0	0	0	2	(s)	437	0	155	593	19
Surinam .....	0	0	0	0	0	0	0	(s)	0	16	0	(s)	16	1
Sweden .....	0	(s)	0	0	0	233	0	1	(s)	0	0	2	236	8
Switzerland .....	0	(s)	0	0	0	0	(s)	(s)	(s)	0	0	1	1	(s)
Thailand .....	0	0	0	0	0	0	(s)	1	(s)	0	(s)	107	108	3
Trinidad and Tobago .....	0	3	0	0	0	0	(s)	(s)	0	0	(s)	3	6	(s)
Turkey .....	0	0	0	0	0	0	0	10	0	0	0	0	10	(s)
United Arab Emirates .....	0	0	0	0	0	0	0	1	0	0	1	(s)	1	(s)
United Kingdom .....	0	1	0	0	25	929	(s)	9	1	18	(s)	16	999	32
U.S.S.R. ....	0	0	0	0	0	0	0	26	0	72	0	0	98	3
Uruguay .....	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Venezuela .....	0	10	0	0	0	0	(s)	1	(s)	46	(s)	3	59	2
Virgin Islands .....	3,639	0	0	0	0	0	0	(s)	0	0	0	0	3,639	117
West Germany .....	0	1	0	0	390	0	0	1	(s)	221	0	4	617	20
Yugoslavia .....	0	0	0	0	0	0	0	0	0	31	0	0	31	1
Other .....	548	2	35	0	0	657	(s)	8	(s)	0	(s)	1	1,252	40
Total .....	7,383	2,091	562	255	2,793	7,285	89	395	21	3,282	6	1,532	25,693	829

1 Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange, on a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, January 31, 1982  
(Thousands of Barrels)

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States			
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico		Total	Rocky Mt.	Dist. V West Coast
Crude Oil (incl lease condensate) <sup>1</sup>																	
Refinery .....	--	--	15,601	--	--	--	--	16,227	--	--	--	--	--	50,113	2,280	25,868	110,089
Tank Farms and Pipelines .....	--	--	2,882	--	--	--	--	65,388	--	--	--	--	--	99,182	10,523	31,272	209,247
Leases .....	--	--	69	--	--	--	--	1,552	--	--	--	--	--	17,419	1,365	1,576	21,981
Strategic Petroleum Reserve <sup>2</sup> .....	--	--	0	--	--	--	--	0	--	--	--	--	--	235,271	0	0	235,271
Alaskan In-Transit .....	--	--	0	--	--	--	--	0	--	--	--	--	--	0	0	29,578	29,578
Total .....	--	--	18,552	--	--	--	--	83,167	--	--	--	--	--	401,985	14,168	88,294	606,166
Petroleum Products																	
Refinery .....	42,857	4,804	47,661	855	47,962	7,499	25,167	81,483	12,353	77,804	48,297	5,688	2,101	146,243	16,728	69,258	361,373
Bulk Terminal .....	132,062	8,711	140,773	4,782	45,547	10,351	15,278	75,958	5,240	37,304	8,073	4,553	622	55,792	3,036	24,923	300,482
Pipeline .....	26,605	2,172	28,777	1,617	13,289	2,452	17,626	34,984	8,454	8,440	6,548	14,607	1,086	39,135	2,851	4,957	110,704
Natural Gas Processing Plant .....	383	438	821	0	2,337	185	21,621	24,143	6,315	31,753	12,695	4,100	1,188	56,051	314	820	82,149
Total .....	201,907	16,125	218,032	7,254	109,135	20,487	79,692	216,568	32,362	155,301	75,613	28,948	4,997	297,221	22,929	99,958	854,708
Natural Gasoline and Isopentane																	
Refinery .....	4	3	7	0	18	170	134	322	109	506	219	1	31	866	50	23	1,268
Pipeline .....	0	0	0	0	42	1	243	286	242	102	0	41	56	441	165	5	897
Natural Gas Processing Plant .....	4	29	33	0	28	9	1,370	1,407	467	6,094	487	16	60	7,124	44	17	8,625
Total .....	8	32	40	0	88	180	1,747	2,015	818	6,702	706	58	147	8,431	259	45	10,790
Unfractionated Stream																	
Refinery .....	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	2
Pipeline .....	0	0	0	0	78	0	15	93	0	28	29	0	0	57	0	0	150
Natural Gas Processing Plant .....	0	0	0	0	103	3	1,931	2,037	268	757	221	2	197	1,444	29	2	3,511
Total .....	0	0	0	0	181	3	1,946	2,130	268	787	250	2	197	1,503	29	2	3,663
Plant Condensate																	
Refinery .....	0	0	0	0	4	0	0	4	15	105	0	97	0	217	0	0	221
Pipeline .....	0	0	0	0	73	0	0	73	781	269	49	4	17	1,120	0	0	1,193
Natural Gas Processing Plant .....	0	0	0	0	2	0	5	7	23	33	10	11	1	77	2	0	85
Total .....	0	0	0	0	79	0	5	84	819	407	59	112	18	1,414	2	0	1,499
Ethane																	
Refinery .....	0	0	0	0	10	0	0	10	0	351	0	0	0	351	0	0	361
Bulk Terminal .....	0	0	0	0	78	0	52	130	0	926	0	0	0	926	0	0	1,056
Pipeline .....	888	0	888	0	27	0	125	152	238	78	121	0	3	440	0	0	1,480
Natural Gas Processing Plant .....	0	0	0	0	23	0	377	399	329	937	552	(s)	0	1,818	(s)	0	2,218
Total .....	888	0	888	0	138	0	554	691	567	2,292	673	(s)	3	3,535	(s)	0	5,115
Propane for Petrochemical Feedstock Use																	
Refinery .....	75	0	75	0	53	0	7	60	0	5	0	0	0	5	1	0	141
Total .....	75	0	75	0	53	0	7	60	0	5	0	0	0	5	1	0	141
Propane for Other Uses																	
Refinery .....	331	5	336	2	977	26	310	1,315	203	963	1,002	7	4	2,179	100	193	4,123
Bulk Terminal .....	289	0	289	0	1,144	106	586	1,836	146	15,000	31	39	0	15,216	49	0	17,390
Pipeline .....	628	835	1,463	60	865	142	1,836	2,903	550	122	255	755	142	1,824	106	0	6,296
Natural Gas Processing Plant .....	313	403	716	0	1,982	161	12,605	14,749	3,438	8,269	6,815	3,788	337	22,647	191	372	38,675
Total .....	1,561	1,243	2,804	62	4,968	435	15,337	20,803	4,337	24,354	8,103	4,589	483	41,866	446	565	66,484

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, January 31, 1982  
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III			PAD District IV		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico		Total	Rocky Mt.
Butane for Petrochemical Feedstock Use																
Refinery	0	0	0	0	0	21	0	21	0	19	0	1	0	20	1	2
Total	0	0	0	0	0	21	0	21	0	19	0	1	0	20	1	2
Butane for Other Uses																
Refinery	134	7	141	39	346	17	242	644	142	454	971	4	4	1,575	162	561
Bulk Terminal	273	0	273	0	254	0	59	313	72	4,275	0	0	0	4,347	0	0
Pipeline	26	120	146	0	1,129	24	388	1,521	1,143	66	5	65	57	1,336	51	0
Natural Gas Processing Plant	51	3	54	0	109	10	2,081	2,200	688	5,672	3,608	176	68	10,213	42	166
Total	484	130	614	39	1,838	51	2,750	4,678	2,045	10,467	4,584	245	129	17,471	255	727
Butane-Propane Mix for Petro. Feed. Use																
Refinery	0	0	0	0	0	0	0	0	1	0	2	0	0	3	0	3
Total	0	0	0	0	0	0	0	0	1	0	2	0	0	3	0	3
Butane-Propane Mix for Other Uses																
Refinery	0	0	0	0	0	0	0	0	0	11	11	0	3	25	5	168
Bulk Terminal	0	0	0	0	9	0	0	9	0	0	0	0	0	0	0	9
Pipeline	0	0	0	0	0	0	19	19	648	26	10	0	1	685	0	0
Natural Gas Processing Plant	0	0	0	0	4	0	63	67	116	15	0	2	0	133	0	3
Total	0	0	0	0	13	0	82	95	764	52	21	2	4	843	5	171
Ethane-Propane Mix																
Bulk Terminal	0	0	0	0	0	0	3	3	450	4,152	0	0	0	4,602	0	0
Pipeline	0	0	0	0	66	0	575	641	708	86	2	0	144	940	182	0
Natural Gas Processing Plant	0	0	0	0	0	0	2,411	2,411	326	7,803	0	(s)	437	8,566	0	0
Total	0	0	0	0	66	0	2,989	3,055	1,484	12,041	2	(s)	581	14,108	182	0
Isobutane																
Refinery	1	1	2	32	181	37	167	417	93	306	249	9	5	662	73	17
Bulk Terminal	0	0	0	0	33	0	3	36	118	1,243	0	0	0	1,361	0	0
Pipeline	5	0	5	0	554	4	104	662	150	64	0	50	57	321	43	0
Natural Gas Processing Plant	3	2	5	0	83	2	778	862	366	1,929	995	78	88	3,456	1	259
Total	9	3	12	32	851	43	1,052	1,977	727	3,542	1,244	137	150	5,800	117	276
Other Hydrocarbons and Alcohol																
Refinery	0	2	2	0	97	0	1	98	13	70	4	0	0	87	1	2
Total	0	2	2	0	97	0	1	98	13	70	4	0	0	87	1	2
Unfinished Oils																
Refinery	3,133	379	3,512	38	2,908	158	1,260	4,364	1,481	7,051	4,913	489	228	14,162	542	4,969
Naphtha and Lighter	1,232	9	1,241	0	2,626	4	1,703	4,333	224	5,929	2,009	64	1	8,227	641	4,025
Kerosene and Lighter Gas Oils	6,622	612	7,234	94	5,115	257	2,929	8,395	1,216	10,742	7,443	346	27	19,774	1,467	11,537
Heavy Gas Oils	1,781	297	2,078	1	4,004	21	2,022	6,048	244	3,764	3,420	36	12	7,476	639	6,032
Residuum	12,768	1,297	14,065	133	14,653	440	7,914	23,140	3,165	27,486	17,785	935	268	49,639	3,289	26,563
Total																

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, January 31, 1982  
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III			PAD District IV		United States			
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico		Total		
Motor Gasoline Blending Components																	
Refinery .....	5,585	194	5,779	58	7,111	978	2,686	10,833	2,015	9,122	6,409	163	309	18,018	3,059	8,355	46,044
Bulk Terminal .....	377	1	378	4	116	1	329	450	84	18	0	1	0	103	7	715	1,653
Pipeline .....	0	0	0	0	14	2	239	255	0	0	0	0	0	0	0	0	255
Total .....	5,962	195	6,157	62	7,241	981	3,254	11,538	2,099	9,140	6,409	164	309	18,121	3,066	9,070	47,952
Aviation Gasoline Blending Components																	
Refinery .....	0	0	0	0	135	0	6	141	50	184	253	0	0	487	0	36	664
Total .....	0	0	0	0	135	0	6	141	50	184	253	0	0	487	0	36	664
Total Finished Motor Gasoline																	
Refinery .....	6,885	662	7,547	100	7,835	1,897	4,877	14,709	2,571	9,930	5,912	876	297	19,586	3,107	9,283	54,232
Bulk Terminal .....	39,299	4,004	43,303	2,370	21,905	4,726	6,740	35,741	2,525	5,336	1,856	2,953	409	13,079	1,941	10,858	104,922
Pipeline .....	13,885	809	14,694	1,030	7,027	1,420	7,142	16,619	2,329	4,884	3,974	8,045	193	19,425	1,455	2,753	54,946
Natural Gas Processing Plant .....	13	0	13	0	0	0	0	0	30	0	0	0	0	30	4	0	47
Total Finished Motor Gasoline .....	60,082	5,475	65,557	3,500	36,767	8,043	18,759	67,069	7,455	20,150	11,742	11,874	899	52,120	6,507	22,894	214,147
Finished Leaded Motor Gasoline																	
Refinery .....	2,972	393	3,365	52	3,937	1,100	2,938	8,027	1,497	5,236	2,983	761	200	10,677	2,056	4,171	28,296
Bulk Terminal .....	18,648	1,869	20,517	1,162	11,454	2,704	4,103	19,423	1,371	3,175	1,011	1,557	261	7,375	1,246	5,634	54,195
Pipeline .....	7,057	381	7,438	598	4,145	891	4,233	9,867	1,148	2,606	1,617	4,003	120	9,494	1,030	1,308	29,137
Natural Gas Processing Plant .....	13	0	13	0	0	0	0	0	26	0	0	0	0	26	3	0	41
Total .....	28,690	2,643	31,333	1,812	19,536	4,695	11,274	37,317	4,042	11,017	5,611	6,321	581	27,572	4,335	11,113	111,669
Finished Unleaded Motor Gasoline																	
Refinery .....	3,913	269	4,182	48	3,898	797	1,939	6,682	1,071	4,694	2,929	115	97	8,906	1,049	5,105	25,924
Bulk Terminal .....	20,649	2,135	22,784	1,208	10,432	2,022	2,632	16,294	1,148	2,161	845	1,396	148	5,698	695	5,224	50,695
Pipeline .....	6,828	428	7,256	432	2,882	527	2,909	6,750	1,181	2,278	2,357	4,042	73	9,931	425	1,445	25,807
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	4	0	0	0	0	4	1	0	5
Total .....	31,390	2,832	34,222	1,688	17,212	3,346	7,480	29,726	3,404	9,133	6,131	5,553	318	24,539	2,170	11,774	102,431
Gasohol																	
Refinery .....	0	0	0	0	0	0	0	0	3	0	0	0	0	3	2	7	12
Bulk Terminal .....	2	0	2	0	19	0	5	24	6	0	0	0	0	6	0	0	32
Pipeline .....	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total .....	2	0	2	0	19	2	5	26	9	0	0	0	0	9	2	7	46
Finished Aviation Gasoline																	
Refinery .....	37	0	37	0	192	0	65	257	14	379	168	0	0	561	43	228	1,126
Bulk Terminal .....	334	36	370	1	241	76	87	405	71	0	3	35	49	158	18	462	1,413
Pipeline .....	12	0	12	0	25	0	9	34	0	17	0	0	0	17	0	0	63
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	86	0	0	0	0	86	0	0	86
Total .....	383	36	419	1	458	76	161	696	171	396	171	35	49	822	61	690	2,688
Naphtha-Type Jet Fuel																	
Refinery .....	485	89	574	0	383	56	313	752	298	1,075	330	148	297	2,148	182	864	4,520
Bulk Terminal .....	20	0	20	3	47	23	122	195	142	255	0	49	0	446	20	69	750
Pipeline .....	234	0	234	3	38	0	209	250	76	0	47	124	276	523	57	485	1,549
Total .....	739	89	828	6	468	79	644	1,197	516	1,330	377	321	573	3,117	259	1,418	6,819

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, January 31, 1982  
(Thousands of Barrels) (continued)

Commodity	PAD District I				PAD District II				PAD District III				PAD District IV		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		PAD Dist. IV Rocky Mt.	PAD Dist. V West Coast
<b>Kerosene-Type Jet Fuel</b>																	
Refinery .....	915	20	935	48	856	30	223	1,157	326	2,122	1,853	11	43	4,355	223	3,793	10,463
Bulk Terminal .....	4,075	113	4,188	31	2,341	447	598	3,417	178	790	46	39	33	1,086	172	1,886	10,749
Pipeline .....	2,506	129	2,635	51	728	44	1,397	2,220	1,138	805	328	1,260	61	3,592	152	548	9,147
Total .....	7,496	262	7,758	130	3,925	521	2,218	6,794	1,642	3,717	2,227	1,310	137	9,033	547	6,227	30,359
<b>Kerosene</b>																	
Refinery .....	125	72	197	0	478	24	128	630	34	975	303	10	55	1,377	38	98	2,340
Bulk Terminal .....	3,691	192	3,883	139	605	58	21	823	17	465	49	21	0	552	32	61	5,351
Pipeline .....	531	11	542	110	153	0	329	592	4	33	319	413	0	769	0	0	1,903
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	2	0	0	(s)	1	3	0	0	3
Total .....	4,347	275	4,622	249	1,236	82	478	2,045	57	1,473	671	444	56	2,701	70	159	9,597
<b>Total Distillate Fuel Oils</b>																	
Refinery .....	6,174	637	6,811	50	7,226	1,585	4,517	13,378	1,185	9,198	5,190	1,316	386	17,275	2,617	6,415	46,496
Bulk Terminal .....	51,110	3,106	54,216	1,763	14,678	3,744	5,184	25,369	1,400	1,924	1,254	1,231	127	5,936	796	6,963	93,280
Pipeline .....	7,890	267	8,157	362	2,469	815	5,001	8,647	417	1,860	1,409	3,850	79	7,615	640	1,146	26,205
Natural Gas Processing Plant .....	0	0	0	0	0	0	1	1	2	0	8	0	0	9	0	0	10
Total Distillate Fuel Oil .....	65,174	4,010	69,184	2,175	24,373	6,144	14,703	47,395	3,004	12,982	7,861	6,397	592	30,835	4,053	14,524	165,991
<b>Dist. Fuel Oils Less No. 4 Fuel Oil</b>																	
Refinery .....	6,174	624	6,798	50	7,167	1,585	4,517	13,319	1,090	8,947	5,096	1,237	268	16,638	2,607	6,363	45,725
Bulk Terminal .....	49,280	3,106	52,386	1,755	14,598	3,744	5,184	25,281	1,400	1,918	1,254	1,230	127	5,929	796	6,926	91,318
Pipeline .....	7,890	267	8,157	362	2,469	815	5,001	8,647	417	1,860	1,409	3,850	79	7,615	640	1,146	26,205
Natural Gas Processing Plant .....	0	0	0	0	0	0	1	1	2	0	8	0	0	9	0	0	10
Total .....	63,344	3,997	67,341	2,167	24,234	6,144	14,703	47,248	2,909	12,725	7,767	6,317	474	30,191	4,043	14,435	163,258
<b>No. 4 Fuel Oil</b>																	
Refinery .....	0	13	13	0	59	0	0	59	95	251	94	79	118	637	10	52	771
Bulk Terminal .....	1,830	0	1,830	8	80	0	0	88	0	6	0	1	0	7	0	37	1,962
Total .....	1,830	13	1,843	8	139	0	0	147	95	257	94	80	118	644	10	89	2,733
<b>Residual Fuel Oils</b>																	
Refinery .....	3,956	182	4,138	52	2,678	462	783	3,975	396	5,607	3,590	338	111	10,042	622	7,764	26,541
Bulk Terminal .....	27,811	241	28,052	172	2,291	209	1,093	3,765	29	2,882	4,407	75	0	7,393	0	2,406	41,616
Pipeline .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	20
Total .....	31,767	423	32,190	224	4,969	671	1,876	7,740	425	8,489	7,997	413	111	17,435	622	10,190	68,177
<b>Naphtha &lt; 400 Deg. Petro. Feed. Use</b>																	
Refinery .....	231	0	231	0	233	0	43	276	222	1,245	321	28	0	1,816	0	254	2,577
Total .....	231	0	231	0	233	0	43	276	222	1,245	321	28	0	1,816	0	254	2,577
<b>Other Oils &gt; 400 Deg. Petro. Feed. Use</b>																	
Refinery .....	4	104	108	0	210	0	1	211	447	670	124	39	0	1,280	0	93	1,692
Total .....	4	104	108	0	210	0	1	211	447	670	124	39	0	1,280	0	93	1,692
<b>Special Naphthas</b>																	
Refinery .....	17	51	68	1	256	0	228	485	26	1,217	49	171	0	1,463	5	232	2,253
Bulk Terminal .....	1,076	188	1,264	88	198	29	137	452	0	0	0	8	0	8	0	53	1,777
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	117	0	0	0	0	0	0	0	117
Total .....	1,093	239	1,332	89	454	29	365	937	143	1,217	49	179	0	1,588	5	285	4,147

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, January 31, 1982  
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico		Total	
<b>Lubricants</b>																
Refinery	227	473	700	0	75	0	97	172	0	205	89	0	0	0	294	10
Bright Stock	1,005	416	1,421	0	632	0	503	1,135	0	1,823	1,030	95	0	0	2,948	102
Neutral	706	140	846	0	196	0	96	292	54	2,175	325	149	0	0	2,703	9
Other	1,086	231	1,317	14	432	21	77	544	8	38	246	64	4	4	359	1
Bulk Terminals	3,024	1,260	4,284	14	1,335	21	773	2,143	62	4,241	1,690	307	4	4	6,304	122
Total																
<b>Wax, Microcrystalline</b>																
Refinery	0	31	31	0	0	0	18	18	37	23	10	0	0	0	70	0
Total	0	31	31	0	0	0	18	18	37	23	10	0	0	0	70	0
<b>Wax, Crystalline--Fully Refined</b>																
Refinery	8	26	34	0	12	0	31	43	0	75	129	0	0	0	204	3
Total	8	26	34	0	12	0	31	43	0	75	129	0	0	0	204	3
<b>Wax, Crystalline--Other</b>																
Refinery	4	63	67	0	2	0	6	8	0	131	0	0	0	0	131	0
Total	4	63	67	0	2	0	6	8	0	131	0	0	0	0	131	0
<b>Petroleum Coke</b>																
Refinery	670	0	670	0	282	302	203	787	3	64	434	14	0	0	515	613
Total	670	0	670	0	282	302	203	787	3	64	434	14	0	0	515	613
<b>Asphalt</b>																
Refinery	2,072	287	2,359	339	2,494	1,438	1,513	5,784	842	802	1,158	1,247	288	4,337	2,410	1,776
Bulk Terminal	2,600	599	3,199	197	1,153	906	184	2,440	0	0	181	31	0	212	0	589
Total	4,672	886	5,558	536	3,647	2,344	1,697	8,224	842	802	1,339	1,278	288	4,549	2,410	2,365
<b>Road Oil</b>																
Refinery	0	0	0	0	1	0	8	9	0	0	0	2	0	2	3	5
Total	0	0	0	0	1	0	8	9	0	0	0	2	0	2	3	5
<b>Miscellaneous Products</b>																
Refinery	438	42	480	1	336	16	47	400	92	504	377	27	0	1,000	0	237
Bulk Terminal	21	0	21	0	22	5	3	30	0	0	0	8	0	8	0	33
Pipeline	0	1	1	1	1	0	15	17	30	0	0	0	0	30	0	0
Natural Gas Processing Plant	0	0	0	0	3	0	1	3	57	244	(s)	26	(s)	328	1	0
Total	459	43	502	2	362	21	66	450	179	748	377	61	(s)	1,366	1	270
<b>Total Stocks, All Oils</b>	--	--	236,584	--	--	--	--	299,735	--	--	--	--	--	699,206	37,097	188,252
																1,460,874

1 Crude oil data are not collected by refinery district.

2 Includes 30,355 thousands of barrels of domestic crude oil.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

-- Not Applicable

Table 25. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker and Barge Between PAD Districts, January 1982  
(Thousands of Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	II	III	I	I	III	IV	I	II	IV	V	II	III	V	I	III
<b>Crude Oil</b> .....	0	0	0	108	0	0	0	412	1,208	0	0	0	0	2,838	12,710
<b>Petroleum Products</b> .....	8,198	526	2,778	6,107	2,550	93,997	21,949	1,023	1,023	0	1,113	20	0	0	12
Natural Gasoline and Isopentane .....	0	0	0	291	0	0	0	0	0	0	0	0	0	0	0
Unfractionated Stream .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant Condensate .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases .....	0	0	843	1,698	252	3,091	8,195	0	0	0	0	0	0	0	0
Unfinished Oils .....	15	0	0	0	0	0	0	27	178	0	0	0	0	0	0
Motor Gasoline Blending Components .....	0	0	0	0	0	0	0	0	963	0	0	0	0	0	0
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline .....	5,852	0	1,361	2,220	1,462	45,971	7,192	0	0	618	455	0	834	0	0
Finished Leaded Motor Gasoline .....	2,994	0	611	1,411	874	20,921	4,104	0	0	346	311	0	607	0	0
Finished Unleaded Motor Gasoline .....	2,858	0	750	809	588	25,050	3,088	0	0	272	144	0	227	0	0
Gasohol .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Aviation Gasoline .....	0	0	0	0	13	145	66	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel .....	74	0	0	0	0	762	2	0	0	148	10	0	103	0	0
Kerosene-Type Jet Fuel .....	228	0	43	0	672	8,329	1,658	0	0	116	6	0	29	0	0
Kerosene .....	202	0	18	0	0	1,564	100	0	0	0	0	0	0	0	0
Distillate Fuel Oil .....	1,770	145	327	499	151	25,554	1,701	0	0	292	261	0	147	0	0
Distillate Fuel Oil Less No. 4 .....	1,770	145	327	499	151	25,424	1,701	0	0	292	261	0	147	0	0
No. 4 Fuel Oil .....	0	0	0	0	0	130	0	0	0	0	0	0	0	0	0
Residual Fuel Oil .....	0	261	115	1,338	0	6,633	208	0	0	259	0	0	0	0	12
Naphtha and Other Oils for Petro. Feed Use .....	18	41	18	51	0	123	112	0	0	0	0	0	0	0	0
Special Naphthas .....	0	0	6	0	0	193	174	0	0	0	0	0	0	0	0
Lubricants .....	39	79	47	10	0	662	220	0	0	118	0	0	0	0	0
Wax .....	0	0	0	0	0	23	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil .....	0	0	0	0	0	210	100	0	0	0	0	0	0	0	0
Miscellaneous Products .....	0	0	0	0	0	710	75	0	0	0	0	0	0	20	0
<b>Total All Products</b> .....	8,198	526	2,886	6,107	2,550	94,409	23,157	0	1,551	1,023	0	1,113	2,858	12,722	

Note: Total may not equal sum of components due to independent rounding.  
Sources: See Explanatory Notes on Data Collection and Estimation.

**Table 26. Movements of Petroleum Products by Pipeline Between PAD Districts, January 1982**  
(Thousands of Barrels)

Commodity	From I to		From II to				From III to					From IV to				
	II	I	III	IV	I	II	IV	V	II	III	V					
Natural Gasoline and Isopentane .....	0	0	291	0	0	1,005	0	0	291	0	0	0	0			
Unfractionated Stream .....	0	0	0	0	0	0	0	0	0	0	0	0	0			
Plant Condensate .....	0	0	0	0	0	0	0	0	0	0	0	0	0			
Liquefied Petroleum Gases .....	0	836	1,695	252	2,758	8,059	0	0	0	0	0	0	0			
Motor Gasoline Blending Components .....	0	0	0	0	0	963	0	0	0	0	0	0	0			
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0	0	0			
Finished Motor Gasoline .....	4,503	1,216	2,167	1,462	35,787	6,504	0	618	455	0	834	0	834			
Finished Leaded Motor Gasoline .....	2,367	547	1,371	874	16,286	3,719	0	346	311	0	607	0	607			
Finished Unleaded Motor Gasoline .....	2,136	669	796	588	19,501	2,785	0	272	144	0	227	0	227			
Gasohol .....	0	0	0	0	0	0	0	0	0	0	0	0	0			
Finished Aviation Gasoline .....	0	0	0	13	8	55	0	0	0	0	0	0	0			
Naphtha-Type Jet Fuel .....	0	0	0	0	93	2	0	148	10	0	103	0	103			
Kerosene-Type Jet Fuel .....	165	39	0	672	5,174	1,404	0	116	6	0	29	0	29			
Kerosene .....	95	15	0	0	1,294	87	0	0	0	0	0	0	0			
Distillate Fuel Oils .....	1,323	299	499	151	21,450	1,432	0	292	261	0	147	0	147			
Distillate Fuel Oil Less No. 4 .....	1,323	299	499	151	21,450	1,432	0	292	261	0	147	0	147			
No. 4 Fuel Oil .....	0	0	0	0	0	0	0	0	0	0	0	0	0			
Residual Fuel Oils .....	0	0	0	0	0	0	0	0	0	0	0	0	0			
Miscellaneous Products .....	0	0	0	0	0	35	0	0	0	0	0	0	0			
Total .....	6,086	2,405	4,652	2,550	66,564	19,546	0	1,174	1,023	0	1,113	0	1,113			

Note: Total may not equal sum of components due to independent rounding.  
Source: See Explanatory Notes on Data Collection and Estimation.

**Table 27. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, January 1982**  
(Thousands of Barrels)

Commodity	From I to		From II to			From III to					From V to		
	II	III	I	III	I	New Eng	Cent Atl	Low Atl	II	V	I	III	
<b>Crude Oil</b> .....	0	0	108	0	412	0	412	0	1,208	0	2,838	12,710	
<b>Petroleum Products</b> .....	2,112	526	373	1,455	27,433	3,435	5,168	18,830	2,403	377	20	12	
Liquefied Petroleum Gases .....	0	0	7	3	333	0	0	333	136	0	0	0	
Unfinished Oils .....	15	0	0	0	27	0	0	27	178	0	0	0	
Finished Motor Gasoline .....	1,349	0	145	53	10,184	135	205	9,844	688	0	0	0	
Finished Aviation Gasoline .....	0	0	0	0	137	10	0	127	11	0	0	0	
Naphtha-Type Jet Fuel .....	74	0	0	0	669	0	0	669	0	0	0	0	
Kerosene-Type Jet Fuel .....	63	0	4	0	3,155	265	360	2,530	254	0	0	0	
Kerosene .....	107	0	3	0	270	0	175	95	13	0	0	0	
Distillate Fuel Oil .....	447	145	28	0	4,104	1,516	674	1,914	269	0	0	0	
Residual Fuel Oil .....	0	261	115	1,338	6,633	1,450	2,430	2,753	208	259	0	12	
Naphtha and Other Oils for Petrochemical Feedstock Use .....	18	41	18	51	123	0	13	110	112	0	0	0	
Special Naphthas .....	0	0	6	0	193	28	124	41	174	0	0	0	
Lubricants .....	39	79	47	10	662	21	476	165	220	118	0	0	
Wax .....	0	0	0	0	23	0	23	0	0	0	0	0	
Asphalt and Road Oil .....	0	0	0	0	210	0	0	210	100	0	0	0	
Miscellaneous Products .....	0	0	0	0	710	10	688	12	40	0	20	0	
<b>Total</b> .....	2,112	526	481	1,455	27,845	3,435	5,580	18,830	3,611	377	2,858	12,722	

Note: Total may not equal sum of components due to independent rounding.  
Source: See Explanatory Notes on Data Collection and Estimation.

Table 28. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker and Barge Between PAD Districts, January 1982  
(Thousands of Barrels)

Commodity	P.A.D. District I			P.A.D. District II			P.A.D. District III			P.A.D. District IV			P.A.D. District V		
	Receipts into PADD I	Shipments from PADD I	Net Receipts PADD I	Receipts into PADD II	Shipments from PADD II	Net Receipts PADD II	Receipts into PADD III	Shipments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Shipments from PADD IV	Net Receipts PADD IV	Receipts into PADD V	Shipments from PADD V	Net Receipts PADD V
<b>Crude Oil</b> .....	3,358	0	3,358	1,208	108	1,100	12,710	1,620	11,090	0	0	0	0	15,548	-15,548
<b>Petroleum Products</b> .....	96,795	8,724	88,071	31,171	11,435	19,736	6,645	117,497	-110,852	2,550	2,136	414	2,664	33	2,631
Natural Gasoline .....	0	0	0	1,296	291	1,005	291	1,005	-714	0	291	-291	0	0	0
Unfractionated Stream .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant Condensate .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases .....	3,934	0	3,934	8,195	2,793	5,402	1,698	11,286	-9,588	252	0	252	0	0	0
Unfinished Oils .....	27	15	12	193	0	193	0	205	-205	0	0	0	0	0	0
Motor Gasoline Blending Components .....	0	0	0	963	0	963	0	963	-963	0	0	0	0	0	0
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline .....	47,332	5,852	41,480	13,499	5,043	8,456	2,220	53,781	-51,561	1,462	1,289	173	1,452	0	1,452
Finished Leaded Motor Gasoline .....	21,532	2,994	18,538	7,409	2,896	4,513	1,411	25,371	-23,960	874	918	-44	953	0	953
Finished Unleaded Motor Gasoline .....	25,800	2,858	22,942	6,090	2,147	3,943	809	28,410	-27,601	588	371	217	499	0	499
Gasohol .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Aviation Gasoline .....	145	0	145	66	13	53	0	211	-211	13	0	13	0	0	0
Naphtha-Type Jet Fuel .....	762	74	688	86	0	86	0	912	-912	0	113	-113	251	0	251
Kerosene-Type Jet Fuel .....	8,372	228	8,144	1,892	715	1,177	0	10,103	-10,103	672	35	637	145	0	145
Kerosene .....	1,582	202	1,380	302	18	284	0	1,664	-1,664	0	0	0	0	0	0
Distillate Fuel Oil .....	25,881	1,915	23,966	3,732	977	2,755	644	27,547	-26,903	151	408	-257	439	0	439
Distillate Fuel Oil Less No. 4 .....	25,751	1,915	23,836	3,732	977	2,755	644	27,417	-26,773	151	408	-257	439	0	439
No. 4 Fuel Oil .....	130	0	130	0	0	0	0	130	-130	0	0	0	0	0	0
Residual Fuel Oil .....	6,748	261	6,487	208	1,453	-1,245	1,611	7,100	-5,489	0	0	0	259	12	247
Naphtha and Other Oils for Petro. Feedstock Use .....	141	59	82	130	69	61	92	235	-143	0	0	0	0	0	0
Special Naphthas .....	199	0	199	174	6	168	0	367	-367	0	0	0	0	0	0
Lubricants .....	709	118	591	259	57	202	89	1,000	-911	0	0	0	118	0	118
Wax .....	23	0	23	0	0	0	0	23	-23	0	0	0	0	0	0
Asphalt and Road Oil .....	210	0	210	100	0	100	0	310	-310	0	0	0	0	0	0
Miscellaneous Products .....	730	0	730	76	0	76	0	785	-785	0	0	0	0	21	-21
<b>Total All Products</b> .....	100,153	8,724	91,429	32,379	11,543	20,836	19,355	119,117	-99,762	2,550	2,136	414	2,664	15,581	-12,917

Note. Total may not equal sum of components due to independent rounding.  
Sources. See Explanatory Notes on Data Collection and Estimation.

Table 29. Production of No. 4 Fuel Oil and Residual Fuel Oil By Sulfur Content, January 1982  
(Thousands of Barrels)

Thousands of Barrels																	
Commodity	PAD District I			PAD District II					PAD District III					PAD		United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La., Gulf Coast	No. La., Ark.	New Mexico	Total	Dist. IV Rocky Mt.		Dist. V West Coast
No. 4 Fuel Oil	0	37	37	0	36	0	0	36	9	310	12	68	229	628	29	77	807
0.00 to 0.30% Sulfur	0	2	2	0	2	0	0	2	0	250	-16	2	0	236	0	0	240
0.31 to 0.50% Sulfur	0	0	0	0	6	0	0	6	-13	0	0	0	0	-13	29	-2	20
0.51 to 1.00% Sulfur	0	0	0	0	28	0	0	28	4	60	0	2	229	295	0	45	368
1.01 to 2.00% Sulfur	0	35	35	0	0	0	0	0	18	0	0	0	0	18	0	17	70
Greater Than 2.00% Sulfur	0	0	0	0	0	0	0	0	0	0	28	64	0	92	0	17	109
Residual Fuel Oil	5,918	363	6,281	176	3,083	407	719	4,385	894	7,146	5,985	459	150	14,634	526	10,847	36,673
0.00 to 0.30% Sulfur	349	27	376	0	0	0	0	0	99	326	26	107	51	609	5	691	1,681
0.31 to 0.50% Sulfur	1,947	11	1,958	0	68	46	89	203	134	674	54	117	1	980	126	1,728	4,995
0.51 to 1.00% Sulfur	651	0	651	176	854	0	265	1,295	494	1,436	1,269	146	8	3,353	104	1,509	6,912
1.01 to 2.00% Sulfur	132	325	457	0	1,059	241	173	1,473	144	-162	1,077	15	90	1,164	90	6,519	9,703
Greater Than 2.00% Sulfur	2,839	0	2,839	0	1,102	120	192	1,414	23	4,872	3,559	74	0	8,528	201	400	13,382

Note: Total may not equal sum of components due to independent rounding.  
Source: See Explanatory Notes on Data Collection and Estimation.

Table 30. Stocks of No.4 Fuel Oil and Residual Fuel Oil By Sulfur Content, January 31, 1982  
(Thousands of Barrels)

Commodity	PAD District I				PAD District II					PAD District III				PAD District IV			United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	Dist. V West Coast		
<b>No. 4 Fuel Oil -- 0.00 to 0.30% Sulfur</b>																		
Refinery	0	8	8	0	0	0	0	0	0	0	11	55	4	0	70	0	0	78
Bulk Terminal	459	0	459	0	0	0	0	0	0	0	6	0	1	0	7	0	0	466
Total	459	8	467	0	0	0	0	0	0	0	17	55	5	0	77	0	0	544
<b>No.4 Fuel Oil -- 0.31 to 0.50% Sulfur</b>																		
Refinery	0	0	0	0	7	0	0	7	25	0	0	1	0	0	26	8	18	59
Bulk Terminal	143	0	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	143
Total	143	0	143	0	7	0	0	7	25	0	0	1	0	0	26	8	18	202
<b>No. 4 Fuel Oil -- 0.50 to 1.00% Sulfur</b>																		
Refinery	0	0	0	0	52	0	0	52	33	240	0	0	3	118	394	0	15	461
Bulk Terminal	610	0	610	0	49	0	0	49	0	0	0	0	0	0	0	0	0	659
Total	610	0	610	0	101	0	0	101	33	240	0	0	3	118	394	0	15	1,120
<b>No. 4 Fuel Oil -- 1.01 to 2.00% Sulfur</b>																		
Refinery	0	5	5	0	0	0	0	0	37	0	0	0	0	0	37	2	16	60
Bulk Terminal	514	0	514	0	0	0	0	0	0	0	0	0	0	0	0	0	37	551
Total	514	5	519	0	0	0	0	0	37	0	0	0	0	0	37	2	53	611
<b>No.4 Fuel Oil -- Greater Than 2.00% Sulfur</b>																		
Refinery	0	0	0	0	0	0	0	0	0	0	0	38	72	0	110	0	3	113
Bulk Terminal	104	0	104	8	31	0	0	39	0	0	0	0	0	0	0	0	0	143
Total	104	0	104	8	31	0	0	39	0	0	0	38	72	0	110	0	3	256
<b>Residual Fuel Oil -- 0.00 to 0.30% Sulfur</b>																		
Refinery	359	54	413	0	2	0	0	2	80	158	25	39	23	325	123	912	0	1,775
Bulk Terminal	3,418	0	3,418	0	16	0	0	16	0	9	2,516	2	0	2,527	0	0	0	5,961
Total	3,777	54	3,831	0	18	0	0	18	80	167	2,541	41	23	2,852	123	912	0	7,736
<b>Residual Fuel Oil -- 0.31 to 0.50% Sulfur</b>																		
Refinery	868	14	882	0	118	33	3	154	24	437	24	73	1	559	51	1,620	0	3,266
Bulk Terminal	1,563	0	1,563	0	0	0	91	91	0	144	165	0	0	309	0	50	0	2,013
Total	2,431	14	2,445	0	118	33	94	245	24	581	189	73	1	868	51	1,670	0	5,279
<b>Residual Fuel Oil -- 0.51 to 1.00% Sulfur</b>																		
Refinery	1,241	0	1,241	52	979	0	265	1,296	198	1,232	1,524	130	8	3,092	34	663	0	6,326
Bulk Terminal	5,693	124	5,817	91	1,459	20	91	1,661	29	976	209	0	0	1,214	0	240	0	8,932
Total	6,934	124	7,058	143	2,438	20	356	2,957	227	2,208	1,733	130	8	4,306	34	903	0	15,258
<b>Residual Fuel Oil -- 1.01 to 2.00% Sulfur</b>																		
Refinery	380	114	494	0	1,041	209	254	1,504	76	1,002	805	4	79	1,966	246	4,361	0	8,571
Bulk Terminal	4,597	91	4,688	81	554	119	701	1,455	0	424	423	0	0	847	0	1,744	0	8,734
Total	4,977	205	5,182	81	1,595	328	955	2,959	76	1,426	1,228	4	79	2,813	246	6,105	0	17,305
<b>Residual Fuel Oil -- Greater than 2.00% Sulfur</b>																		
Refinery	1,108	0	1,108	0	538	220	261	1,019	18	2,778	1,212	92	0	4,100	168	208	0	6,603
Bulk Terminal	12,540	26	12,566	0	262	70	210	542	0	1,329	1,094	73	0	2,496	0	372	0	15,976
Total	13,648	26	13,674	0	800	290	471	1,561	18	4,107	2,306	165	0	6,596	168	580	0	22,579
<b>Residual Fuel Oil -- Sulfur Content Not Specified</b>																		
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20

Note. Total may not equal sum of components due to independent rounding  
Sources. See Explanatory Notes on Data Collection and Estimation

Table 31. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, January 1982  
(Thousands of Barrels)

Country	Residual Fuel Oil						Total
	0.00 to 0.30%	0.31 to 0.50%	0.51 to 1.00%	1.01 to 2.00%	Greater Than 2.00%	Not Specified	
<b>Arab OPEC</b>							
Algeria .....	1,431	0	0	0	0	0	1,431
Libya .....	0	0	0	0	0	0	0
Saudi Arabia .....	0	0	0	0	0	0	0
United Arab Emirates .....	0	0	0	0	0	0	0
Subtotal Arab OPEC .....	1,431	0	0	0	0	0	1,431
<b>Other OPEC</b>							
Ecuador .....	0	0	0	310	0	0	310
Gabon .....	0	0	0	0	0	0	0
Indonesia .....	390	0	0	0	0	0	390
Nigeria .....	590	0	0	0	0	0	590
Venezuela .....	2,612	0	403	1,894	3,566	0	8,475
Subtotal Other OPEC .....	3,592	0	403	2,203	3,566	0	9,765
<b>Other</b>							
Angola .....	0	0	0	0	0	0	0
Australia .....	0	0	0	0	0	0	0
Bahamas .....	36	0	0	212	204	0	452
Brazil .....	349	0	0	0	0	0	349
Brunei .....	0	59	0	0	0	0	59
Canada .....	72	0	291	68	4	0	436
Egypt .....	0	0	0	0	0	0	0
France .....	0	0	0	0	0	0	0
Malaysia .....	0	0	0	0	0	0	0
Mexico .....	(s)	0	0	0	1,626	0	1,626
Netherlands .....	0	0	0	0	210	0	210
Netherlands Antilles .....	0	0	138	747	3,854	55	4,793
Norway .....	0	0	0	0	0	0	0
Oman .....	0	0	0	0	0	0	0
People's Republic of China .....	0	0	0	0	0	0	0
Peru .....	2	0	237	0	0	0	239
Puerto Rico .....	0	0	0	0	0	0	0
Romania .....	0	0	0	0	0	0	0
Trinidad .....	0	0	279	0	0	0	279
Tunisia .....	0	0	0	0	0	0	0
United Kingdom .....	0	0	0	0	0	0	0
Virgin Islands .....	831	574	1,375	1,738	429	0	4,946
Zaire .....	0	0	0	0	0	0	0
<b>Other Western Hemisphere</b>							
Hemisphere .....	230	184	0	0	0	0	414
Other Eastern Hemisphere .....	(s)	441	0	0	0	0	441
Subtotal Other .....	1,520	1,259	2,320	2,765	6,327	55	14,244
<b>Total Imports .....</b>	<b>6,543</b>	<b>1,259</b>	<b>2,723</b>	<b>4,968</b>	<b>9,893</b>	<b>55</b>	<b>25,440</b>

(s) Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

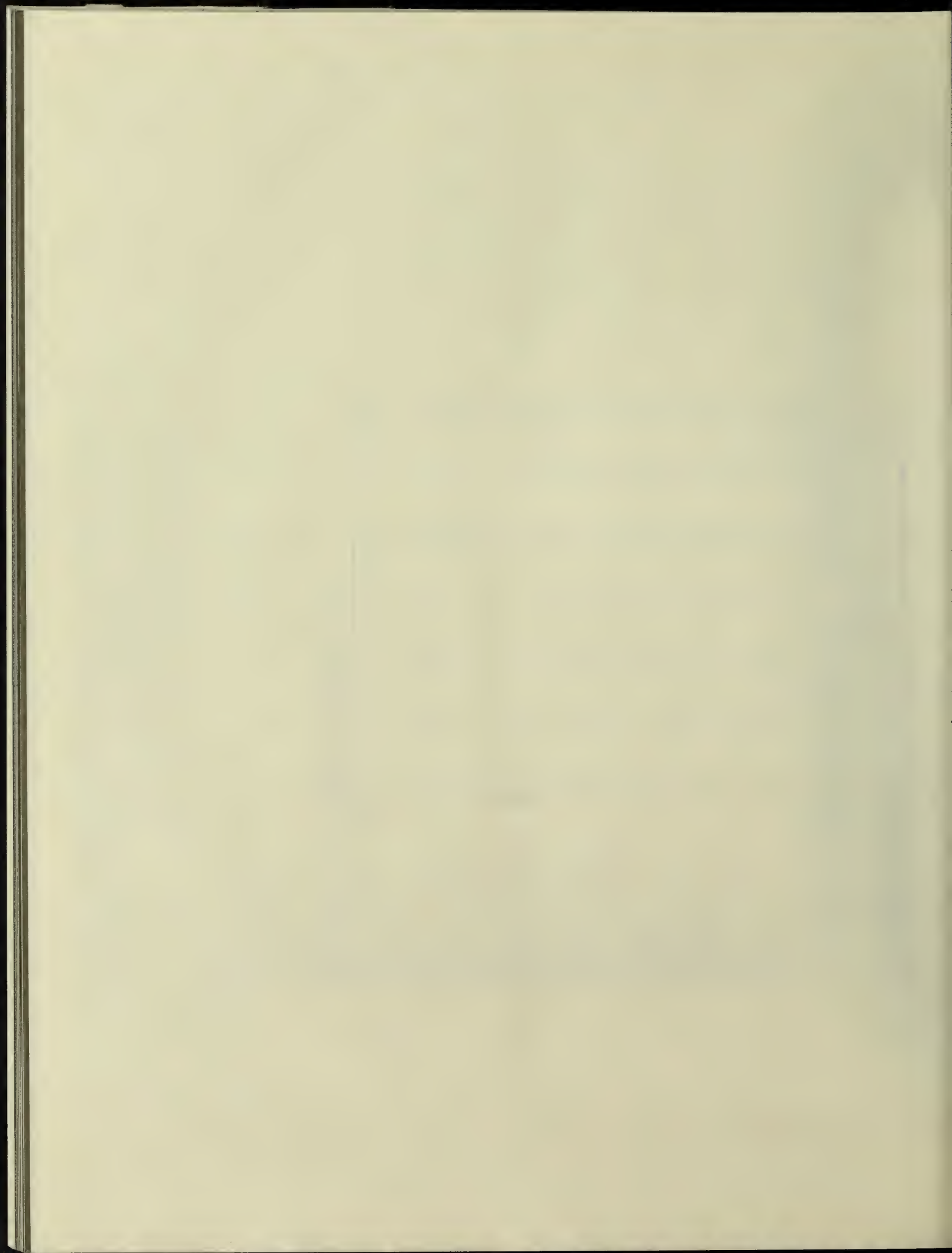
Table 32. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, January 1982  
(Thousands of Barrels)

State	Residual Fuel Oil					
	0.00 to 0.30%	0.31 to 0.50%	0.51 to 1.00%	1.01 to 2.00%	Greater Than 2.00%	Total
<b>P.A.D. District I</b> .....	<b>5,878</b>	<b>1,042</b>	<b>2,683</b>	<b>4,951</b>	<b>8,560</b>	<b>23,169</b>
Delaware .....	0	0	148	0	0	0
Florida .....	0	0	319	0	980	0
Georgia .....	0	0	0	0	127	0
Maine .....	0	0	0	0	776	0
Maryland .....	0	0	0	102	313	0
Massachusetts .....	0	0	279	915	1,918	0
New Jersey .....	724	383	458	210	1,031	0
New York .....	5,141	121	1,000	2,119	1,216	0
North Carolina .....	0	0	0	209	199	0
Pennsylvania .....	0	538	438	267	305	0
Rhode Island .....	0	0	0	0	50	0
South Carolina .....	12	0	0	39	322	0
Virginia .....	0	0	41	1,091	1,113	0
<b>P.A.D. District II</b> .....	<b>72</b>	<b>0</b>	<b>41</b>	<b>0</b>	<b>4</b>	<b>117</b>
Illinois .....	72	0	0	0	0	0
Michigan .....	0	0	41	0	0	0
North Dakota .....	0	0	0	0	4	0
<b>P.A.D. District III</b> .....	<b>590</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,228</b>	<b>1,818</b>
Louisiana .....	296	0	0	0	403	0
Texas .....	294	0	0	0	825	0
<b>P.A.D. District IV</b> .....	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>P.A.D. District V</b> .....	<b>2</b>	<b>217</b>	<b>0</b>	<b>17</b>	<b>100</b>	<b>336</b>
Arizona .....	(s)	0	0	0	0	0
Hawaii .....	2	217	0	0	0	0
Oregon .....	0	0	0	0	100	0
Washington .....	0	0	0	17	0	0
<b>All P.A.D. Districts</b> .....	<b>6,543</b>	<b>1,259</b>	<b>2,723</b>	<b>4,968</b>	<b>9,893</b>	<b>25,440</b>

(s) Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.



# Glossary



## Glossary

## Definitions of Petroleum Products and Other Terms

**Alcohol.** The family name of a group of organic chemical compounds composed of carbon, hydrogen and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group,  $\text{CH}(\text{CH})_n\text{-OH}$ . "Alcohol" includes ethanol and methanol.

**Asphalt.** A dark-brown-to-black cement-like material, containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor is 5.6 42-gallon barrels per short ton.

**ASTM.** The acronym for the American Society for Testing and Materials.

**Aviation Gasoline Blending Components.** Finished components in the gasoline range which will be used for blending or compounding into finished aviation gasoline.

**Aviation Gasoline (Finished).** All special grades of gasoline for use in aviation reciprocating engines as given in ASTM Specification D 910 and Military Specification MIL-G-5572.

**Barrel.** A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt and wax to barrels are given in the definitions for these products.

**Butane.** A normally gaseous paraffinic hydrocarbon,  $\text{C}_4\text{H}_{10}$ . It is extracted from natural gas or refinery gas streams. Butane is covered by ASTM Specification D1835 and Gas Processors Association Specification for commercial butane.

- Normal Butane—A saturated straight-chain hydrocarbon of butane. It is a colorless paraffinic gas that boils at a temperature of  $31.1^\circ\text{F}$ . This classification includes mixtures of gases that contain 80 percent or more normal butane.
- Other Butanes—All butanes not included as normal butane or isobutane.

**Butane-Propane Mixtures.** Mixtures consisting exclusively of butane and propane that conform to ASTM Specification D1835 and Gas Processors Association Specification for commercial butane-propane. They are extracted from natural gas and refinery gas streams.

**Butylene.** An olefinic hydrocarbon,  $\text{C}_4\text{H}_8$ , recovered from refinery processes. It is reported in the "Butane" category.

**Coal.** A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D 388.

**Crude Oil (including Lease Condensate).** A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Lease condensate is included. Drips are also included, but topped crude (residual oil and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixtures with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

- Domestic—Crude oil produced in the United States or from its outer continental shelf as defined in 43 U.S.C. 1331. Hydrocarbons such as shale oil and tar sand oil are included.
- Foreign—Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

**Distillate Fuel Oil.** A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1 and No. 2 heating oils, No. 1 and No. 2 diesel fuel oils, and No. 4 fuel oil.

- **No. 1 Fuel Oil**—A light distillate fuel oil intended for vaporizing pot-type burners. ASTM Specification D 396 specifies for this grade maximum distillation temperatures of 400° F. at the 10-percent point and 550° F. at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100° F.

- **No. 2 Fuel Oil**—A distillate fuel oil for domestic heating for use in atomizing-type burners or for moderate capacity commercial-industrial burner units. ASTM Specification D 396 specifies for this grade temperatures at the 90-percent point between 540° and 640° F., and kinematic viscosities between 2.0 and 3.6 centistokes at 100° F.

- **No. 1 and No. 2 Diesel Fuel Oils**—Distillate fuel oils used in compression-ignition engines, as given by ASTM Specification D 975:

1. **No. 1-D**—A volatile distillate fuel oil in the 400° to 550° F. boiling range for engines in service requiring frequent speed and load changes. Type C-B diesel fuel, which is used for city buses and similar operations, is included.

2. **No. 2-D**—A distillate fuel oil of lower volatility in the 540° to 640° F. boiling range for engines in industrial and heavy mobile service. Type R-R diesel fuel for railroad compression-ignition engines and Type T-T for diesel-engine trucks are included.

- **No. 4 Fuel Oil**—A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D 396 or Federal Specification VV-F-815C; its kinematic viscosity is between 5.8 and 26.4 centistokes at 100° F. Also included is No. 4-D, a fuel oil for low- and medium-speed diesel engines that conforms to ASTM Specification D 975.

**Eastern Hemisphere.** That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa, and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

**Electric Energy (Purchased).** Electricity purchased for refinery operations that is not produced within the refinery complex.

**Ethane.** A normally gaseous paraffinic hydrocarbon,  $C_2H_6$ , extracted from natural gas and refinery gas streams. "Ethane" includes any product containing 90 percent liquid volume or more ethane.

**Ethane-Propane Mixtures.** Mixtures of ethane and propane in which neither component is 90 percent or more of the liquid volume. It is extracted for natural gas and refinery gas streams.

**Ethylene.** An olefinic hydrocarbon,  $C_2H_4$ , recovered from refinery and petrochemical processes. It is reported in the "Ethane" category.

**Field Production.** Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

**Gas Well Gas.** Natural gas produced from gas wells. Such gas may be either associated gas or non-associated gas.

- **Associated Gas**—Free natural gas in immediate contact, but not in solution, with crude oil in the reservoir.

- **Non-Associated Gas**—Free natural gas not in contact with, nor dissolved in, crude oil in the reservoir.

**Imported Crude Oil Burned as Fuel.** The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. "Imported crude oil burned as fuel" includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and oil shale.

**Isobutane.** A saturated branch-chain isomer of butane. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. This classification includes mixtures of gases that contain 80 percent liquid volume or more isobutane. It is extracted from natural gas and refinery gas streams.

**Isopentane.** A saturated branch-chain hydrocarbon, C<sub>5</sub>H<sub>12</sub>, obtained by fractionation of natural gasoline or isomerization of normal pentane.

**Kerosene.** A petroleum distillate that boils at a temperature between 300° and 550° F., that has a flash point higher than 100° F. by ASTM Method D 56, that has a gravity range from 40° to 46° API, and that has a burning point in the range of 150° to 175° F. It is a clean-burning product suitable for use as an illuminant when burned in wick lamps. Includes grades of kerosene called range oil having properties similar to No. 1 fuel oil, but with a gravity of about 43° API and having a maximum end-point of 625° F. Kerosene is used in space heaters, cook stoves, and water heaters.

**Kerosene-Type Jet Fuel.** A quality kerosene product with an average gravity of 40.7° API, a 10-percent distillation temperature of 400° F., and an end-point of 572° F. It is covered by ASTM Specification D 1655 and Military Specification MIL-T-5624L (Grade JP-5 and JP-8). It is used primarily for commercial turbojet and turboprop aircraft engines.

**Lease Condensate.** A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

**Lease Separator.** A surface facility used for separating casinghead gas from produced crude oil and water and separating gas from that portion of associated gas and non-associated gas that liquefies at the temperature and pressure conditions of the separator.

**Liquefied Petroleum Gases (LPG).** Propane, propylene, butanes, butylene, ethane-propane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids. Formerly called "Liquefied Gases."

**Liquefied Refinery Gases (LRG).** Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration they are retained in the liquid state. The reported categories are ethane and/or ethylene, propane and/or propylene, butane and/or butylene, butane-propane mixtures, and isobutane. Excludes still gases used for chemical or rubber manufacture which are reported as petrochemical feedstocks and also excludes liquefied gases ready for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstocks, other uses, or both.

**Lubricants.** A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories reported are:

- **Bright Stock**—A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.
- **Neutral**—A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100° F. It is prepared by a treatment such as hydrofining, acid treatment, or solvent extraction.
- **Other**—A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

**Miscellaneous Products.** Includes all finished products not classified elsewhere. "Miscellaneous products" include petrolatum, absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and other finished products.

**Motor Gasoline Blending Components.** Finished components in the gasoline range that will be used for blending or compounding into finished motor gasoline. Pool gasoline is included in this category.

**Motor Gasoline (Finished).** A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition

engines. Specifications for motor gasoline, as given in ASTM Specification D 439 or Federal Specification VV-G-1690B, include a boiling range of 122° to 158° F. at the 10-percent point to 365° to 374° F. at the 90-percent point and a Reid vapor pressure range from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

- **Finished Leaded Gasoline**—Contains more than 0.05 grams of lead per gallon or more than 0.005 grams of phosphorus per gallon. The actual lead content of any given gallon, however, may vary as a function of the size of the producer and company according to specific Environmental Protection Agency waiver provisions. Premium and regular grades are included, depending on the octane rating.
- **Finished Unleaded Gasoline**—Contains up to 0.05 grams of lead per gallon and 0.005 grams of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating.
- **Gasohol**—A blend of alcohol and finished motor gasoline that is no more than 90 percent of finished motor gasoline (leaded or unleaded as described above) and no less than 10 percent or more alcohol (ethanol or methanol).

**Motor Gasoline (Total).** Includes finished leaded motor gasoline, finished unleaded motor gasoline, motor gasoline blending components, and gasohol.

**Naphtha-Type Jet Fuel.** A fuel in the heavy naphtha boiling range with an average gravity of 52.8° API and 20 to 90 percent distillation temperatures of 290° to 470° F., meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. This category excludes ram-jet and petroleum rocket fuels, which are included in the "Miscellaneous Products" category.

**Natural Gas.** A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

**Natural Gas Field Facility.** A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, butane, natural gasoline, etc., and to control the quality of natural gas to be marketed.

**Natural Gas Plant Liquids.** Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials, and are classified as follows: Ethane, propane, ethane-propane mix, isobutane, butane, butane-propane mix, isopentane, natural gasoline, plant condensate, unfractionated stream, and other products from natural gas processing plants (i.e., products meeting the standards of finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

**Natural Gas Processing Plant.** A facility designed to recover natural gas liquids from a stream of natural gas that may or may not have been processed through lease separators or natural gas field facilities. The facility also controls the quality of natural gas to be marketed. Cycling plants are classified as gas processing plants.

**Natural Gasoline.** A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Producers Association.

**OPEC.** The acronym for the Organization of Petroleum Exporting Countries, oil-producing and-exporting countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices, and future concession rights. Current members are Algeria,, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

**Operable Distillation Capacity.** The maximum amount of input that can be processed by a crude oil distillation unit in a 24-hour period, making allowances for processing limitations due to types and

grades of inputs, limitations of downstream facilities, scheduled and unscheduled downtimes, and environmental constraints. Includes any shutdown capacity that could be placed in operation within 90 days.

**Other Hydrocarbons.** Materials received by a refinery and consumed as raw materials. Includes hydrogen, coal, tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

**Petrochemical Feedstocks.** Chemical feedstocks derived from petroleum, principally for the manufacture of synthetic rubber and a variety of plastics. The categories reported are "Naphtha-less than 400° F. end-point" and "Other oils over 400° F. end-point."

- Naphtha less than 400° F. end-point—A naphtha with an end point of less than 400° F. and that is reported as used as a petrochemical feedstock.
- Other oils over 400° F. end-point—Oils with an end point over 400° F. and that are reported as used as a petrochemical feedstock.

**Petroleum Coke.** A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 42-gallon barrels per short ton.

- Marketable Coke—Those grades of coke that are produced in delayed or fluid cokers and which may be recovered as relatively pure carbon. This "green" coke may be sold or further purified by calcining.
- Catalyst Coke—In many catalytic operations (i.e., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as fuel in the refinery process. This carbon or coke is not recoverable in a concentrated form.

**Petroleum Products.** Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, natural gasoline and isopentane, plant condensate, unfractionated stream, ethane, liquefied petroleum gases, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400° F. end-point, other oils-over 400° F. end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

**Petroleum Refinery.** An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas plant liquids, other hydrocarbons, and alcohol.

**Plant Condensate.** One of the natural gas plant liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

**Primary Stocks.** Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in transit from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. "Primary Stocks" excludes stocks of foreign origin that are held in bonded warehouse storage.

**Propane.** A normally gaseous hydrocarbon,  $C_3H_8$ , extracted from natural gas and refinery gas streams. It is used primarily as a fuel and as a petrochemical feedstock. Propane is covered by ASTM Specification D1835, Gas Processors Association for commercial and HD-5 propane, and ASTM Specification for special duty propane.

**Propylene.** An olefinic hydrocarbon,  $C_3H_6$ , recovered from refinery and petrochemical processes. It is reported in the "Propane" category.

**Residual Fuel Oil.** Topped crude of refinery operations. "Residual Fuel Oil" includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D 396 and Federal Specification VV-F-815C; Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2; Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

**Road Oil.** Any heavy petroleum oil, including residual asphaltic oils, used as a dust palliative and surface treatment of roads and highways. It is generally produced in six grades; from 0, the most liquid, to 5, the most viscous.

**Special Naphthas.** All finished products within the gasoline range that are used as paint thinners, cleaners, and solvents. These products are refined to a specified flash point and have a boiling range of 90° to 220° F. "Special naphthas" includes all commercial hexane and cleaning solvents conforming to ASTM Specifications D1836 and D 484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

**Steam (Purchased).** Steam that is purchased for use by a refinery that was not generated from within the refinery complex.

**Still Gas (Refinery Gas).** Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, butane, butylene, propane, propylene, etc. Still gas is reported for petrochemical feedstock use and refinery fuel use.

- **Petrochemical Feedstock Use**—Includes all refinery streams which are used by chemical or rubber manufacturing operations for further processing, less the amount of such streams returned to the source refinery. Finished petrochemical products are not included. For example, polyethylene, butadiene, etc. are considered petrochemical products; therefore, only their feedstock equivalents are included.

- **Fuel Use**—All other still gas.

**Strategic Petroleum Reserve (SPR).** Stocks (currently, only crude oil) maintained by the Federal Government for use during periods of major supply interruption.

**Unfinished Oils.** Includes all oils requiring further processing, except those requiring only mechanical blending.

**Unfractionated Stream.** Mixtures of unsegregated natural gas plant liquid components excluding those included in plant condensate. This product is extracted from natural gas.

**Wax.** A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is a light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades reported are microcrystalline, crystalline—fully refined, and crystalline—other. The conversion factor is 280 pounds per 42-gallon barrel.

- **Microcrystalline Wax**—Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics:

Penetration at 77° F. (D-1321)—60 maximum.  
Viscosity at 210° F. in Saybolt Universal Seconds (SUS)  
(D-88)—60 SUS (10.22 centistokes) minimum to 150  
SUS (31.8 centistokes) maximum.  
Oil content (D-721)—5 percent minimum.

- **Crystalline-Fully Refined Wax**—A light-colored paraffin wax having the following characteristics:

Viscosity at 210° F.  
(D-88)—59.9 SUS (10.18 centistokes) maximum.  
Oil Content (D-721)—0.5 percent maximum.  
Other +20 color, Saybolt minimum.

- **Crystalline-Other Wax**—A paraffin wax having the following characteristics:

Viscosity at 210° F. (D-88)—59.9 SUS (10.18 centistokes) maximum.  
Oil Content (D-721)—0.51 percent minimum to 15 percent maximum.

**Western Hemisphere.** That half of the earth that includes North and South America and the surrounding waters.

# Bureau of Mines Petroleum Refining Districts and PAD Districts

## PAD District

## Refining District

I

**East Coast**—District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

**Appalachian #1**—The State of West Virginia, those parts of the States of Pennsylvania and New York not included in the East Coast District.

**Appalachian #2**—The following counties of the State of Ohio: Erie, Huron, Crawford, Marion, Delaware, Franklin, Pickaway, Ross, Pike, Scioto, and all counties east thereof.

**Indiana—Illinois—Kentucky**—The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and that part of the State of Ohio not included in the Appalachian District.

II

**Minnesota—Wisconsin—North and South Dakota**—The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

**Oklahoma—Kansas—Missouri**—The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

**Texas Inland**—The State of Texas except the Texas Gulf Coast District.

**Texas Gulf Coast**—The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

III

**Louisiana Gulf Coast**—The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

**North Louisiana—Arkansas**—The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

**New Mexico**—The State of New Mexico.

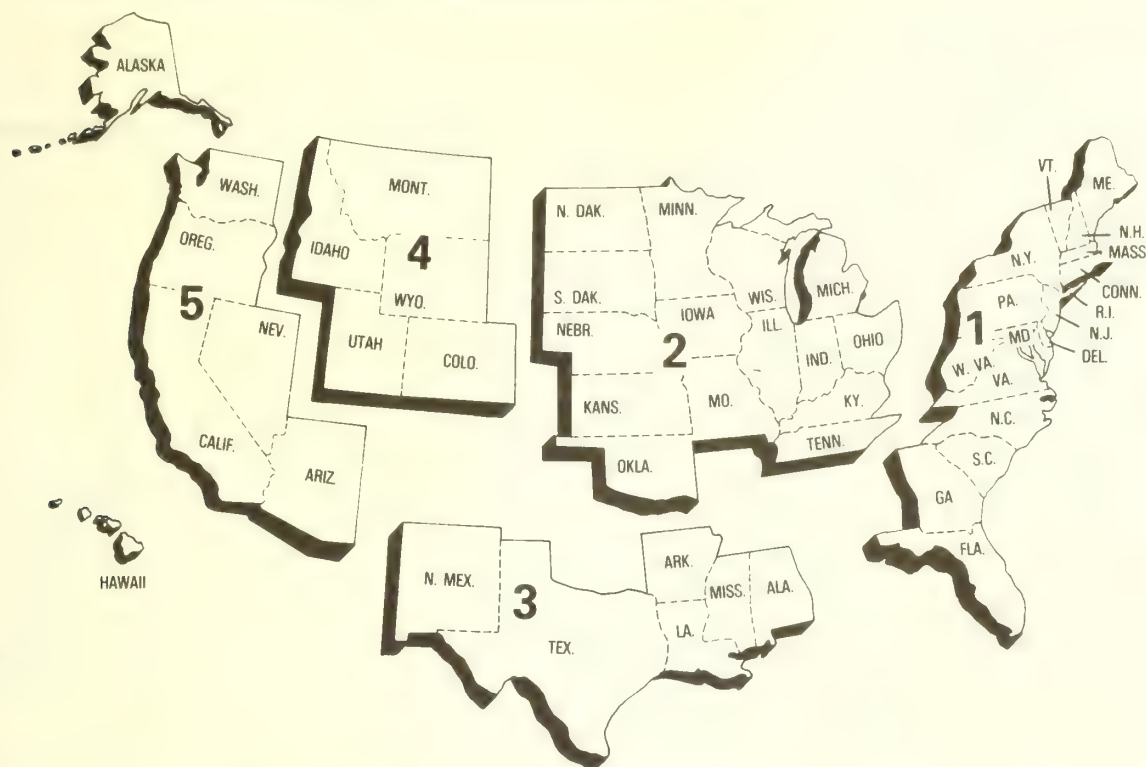
IV

**Rocky Mountain**—The States of Montana, Idaho, Wyoming, Utah, and Colorado.

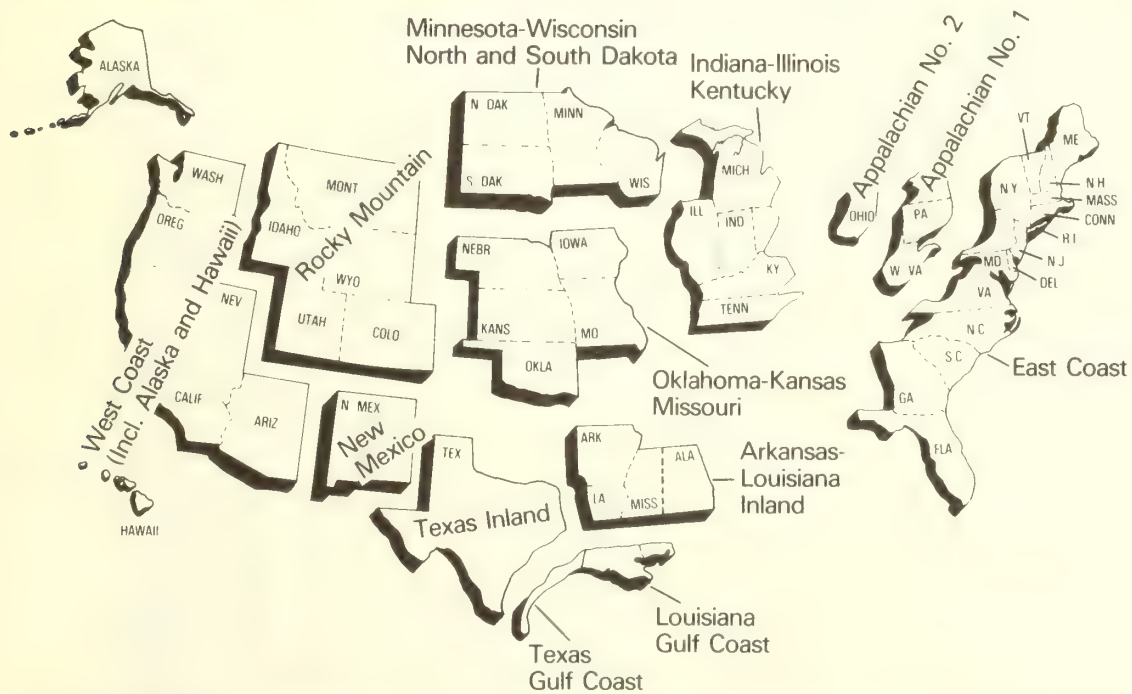
V

**West Coast**—The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

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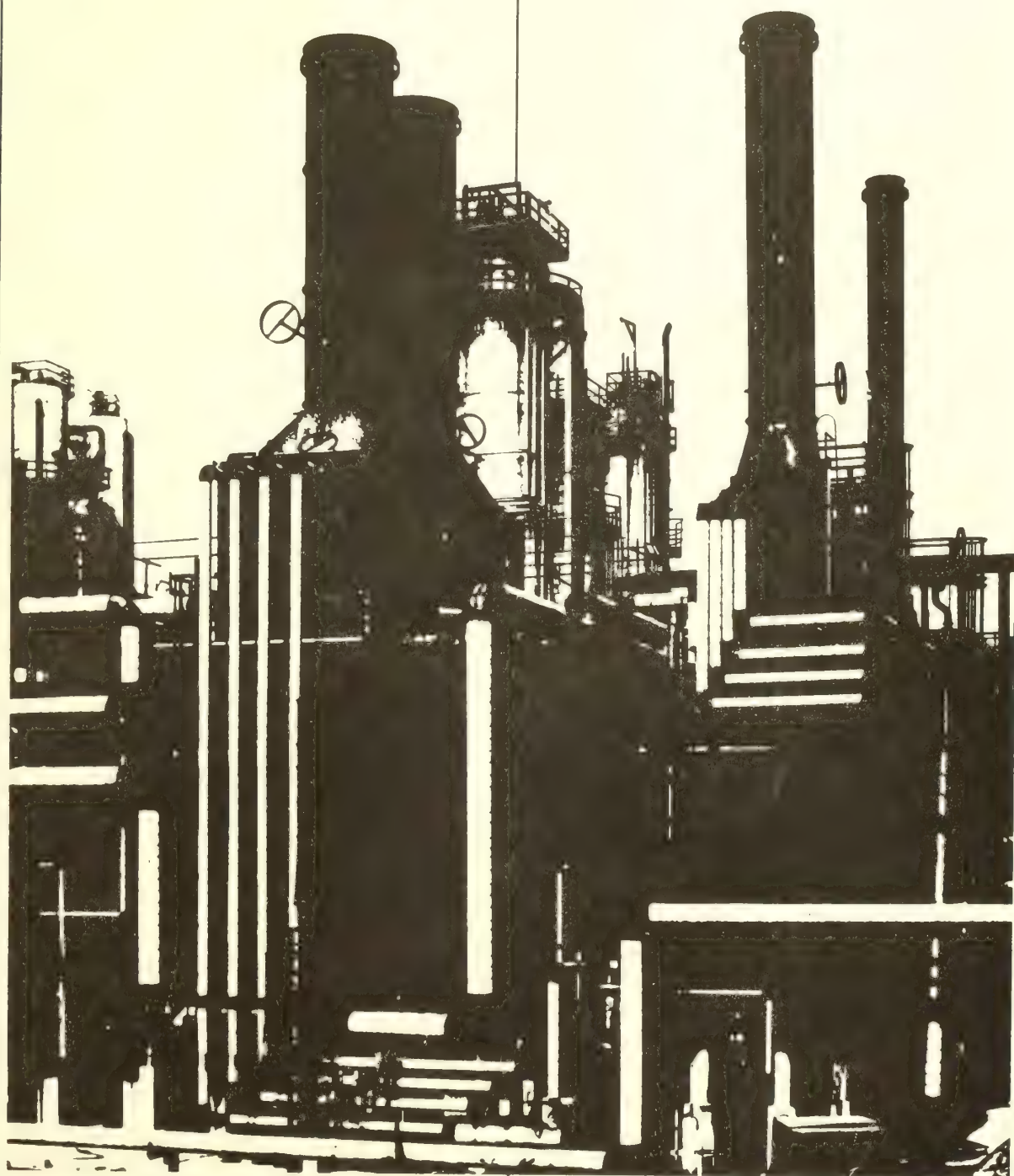
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## District Map Oil and Gas Division Railroad Commission of Texas



## Explanatory Notes



## Explanatory Notes

### Note 1.1 EIA-64: Natural Gas Liquids Operations Report

#### Background

The EIA-64, "Natural Gas Liquids Operations Report" evolved from a survey designed and conducted by the United States Geological Survey beginning in 1911. This form collects data on the production and storage of natural gas plant liquids at natural gas processing plants and fractionators.

#### Description of Survey

##### Universe

The universe includes all operators of facilities designed to: (1) extract liquid hydrocarbons from natural gas streams (natural gas processing plants); (2) separate a combined products liquid hydrocarbon stream into its component products, i.e. propane, butane, natural gasoline, etc. (fractionators); or (3) store the liquid hydrocarbon output of plants and fractionators.

The mailing list is automated. It is maintained by matching periodically with the *LP Gas Almanac* listings (including supplements) and the *Oil and Gas Journal* Processing Plant Survey listings, and by making changes reported by the respondents.

##### Information Collected

The data are submitted monthly by facility and include all products that the company controls through possession, regardless of ownership. The main items of information collected by the EIA-64 are shown by the example of the form presented below.

##### Collection Methods

Completed reports are required to be postmarked 20 days following the last day of the report month. Follow-up telephone calls are made to nonrespondents in order to collect data before publication of the aggregated data.

##### Imputing Missing Data

Imputation is performed only for companies that submitted a report in the previous month. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. The value of shipments is adjusted to balance stock level, production, receipts, plant fuel use, and losses. In the event that the previous month's data were estimated, the respondent is contacted and requested to submit estimates, if necessary, to be followed by a resubmission of actual data.

##### Response Rates

The initial response rate averages 85 percent, with a final response averaging 98 percent as a result of telephone follow-up procedures.

##### Data Processing

Upon receipt, the reports are reviewed for identification section omissions, duplicate submissions, and identification information changes. The data are then entered and edited. The edit program includes checks for invalid data entry codes, range checks for current-month to previous-month changes (absolute and relative), arithmetic calculation errors, line balancing errors, etc. Telephone calls are made to respondents to resolve questions.

### Note 1.2 EIA-87, 88, 89 and 90: Joint Petroleum Reporting System

#### Background

The Joint Petroleum Reporting System (JPRS) comprises four surveys: the "Refinery Report" (EIA-87); the "Bulk Terminal Stocks Report" (EIA-88); the "Pipeline Products Report" (EIA-89); and the

## Natural Gas Liquids Operations Report

This Report is Mandatory Under Public Law 93-275. Failure to Comply may Result in Criminal Fines, Civil Penalties and Other Sanctions as Provided by Law.

Report Type										B		1		0	
EIA Company Identification Number															
Report Date (Last Day of Reporting Month)															
Zip Code of Plant Location										Mo		Yr			

Plant Name

## Section 1 Natural Gas Processing Plant and Fractionator Operations (Barrels of 42 Gallons)

Products	Product Code	Stocks Beginning of Month (a)	Receipts During Month (b)	Inputs During Month (c)	Production During Month (d)	Shipments To					Plant Fuel Use (k)	Losses (m)	Stocks End of Month (n)
						Fractionating Facility (e)	Storage Facility (f)	Refinery (g)	Chemical Plant (h)	Other (i)			
Ethane	110												
Propane	231												
Ethane Propane Mix	241												
Isobutane	233												
Normal Butane	235												
Other Butanes	236												
Butane Propane Mix	234												
Isopentane	240												
Natural Gasoline													
14# and Less RVP	228												
Over 14# RVP	229												
Plant Condensate	210												
Unfractionated Stream	227												
Gasoline							X						
Finished Aviation	111												
Finished Lead	132												
Finished Unleaded	133												
Gasohol	135												
Special Naphthas	051												
Jet Fuel													
Naphtha Type	211												
Kerosene Type	213												
Kerosene	311												
Distillate Fuel Oil	412												
Other Products (Specify)													
Overage (Inputs) or Shortage (Production)	911	X	X			X	X	X	X	X		X	X

"Crude Oil Stocks Report" (EIA-90). This group of forms collects data on petroleum refinery operations and on storage of crude oil and petroleum products. The origins of JPRS lie in the voluntary petroleum reporting systems instituted by the Bureau of Mines (BOM) soon after it was established as a part of the Department of the Interior in May 1910.

## Description of Survey

### Universe

The respondent universe of each JPRS survey is defined as follows:

**EIA-87:** All petroleum refineries and plants producing finished motor gasoline through the mechanical blending of liquids which are operated or controlled in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Hawaiian Foreign Trade Zone, and Guam.

**EIA-88:** All bulk terminal facilities in the 50 States and the District of Columbia, Puerto Rico, and the Virgin Islands that (a) have total bulk storage capacity of 50,000 barrels or more and/or (b) receive petroleum products by tanker, barge, or pipeline regardless of ownership of the material.

**EIA-89:** All products pipeline companies that carry petroleum products (including interstate, intrastate and intracompany pipelines) in the 50 States and the District of Columbia.

**EIA-90:** Crude oil pipeline companies (gathering and trunk pipeline companies), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water (in excess of 1,000 barrels), regardless of ownership in the 50 States and the District of Columbia.

The list of respondents is kept current by checking for new respondents in the *Oil and Gas Journal* weekly magazine; newspaper articles; the Office of Resource Applications publication "Trends in Refinery Capacity & Utilization;" the Office of Refinery Operations (ERA) list of U.S. Refiners; and the annual survey EIA-177 "Capacity of Petroleum Refineries."

### Information Collected

The main items of information collected by EIA-87, are shown by the example presented below. The EIA-88 and EIA-89 collect data on petroleum product stocks. The EIA-90 collects data on crude oil stocks and crude oil used directly as fuel.

### Collection Methods

The data for the JPRS surveys are collected on a monthly basis. Completed forms are required to be postmarked by the 20th day following the report month. Telephone follow-up calls are made to nonrespondents in order to collect data before publication deadline. An automated mailing list is maintained and is used to monitor receipt of the forms.

### Imputing Missing Data

Imputation is performed only for companies that submitted a report in the previous month. For these companies, the previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. The value of shipments is adjusted to balance stock level, production receipts, and losses. In the event that previous month's data were estimated, the respondent is contacted and requested to submit estimates if necessary, to be followed by a resubmission of actual data.

### Response Rates

As of the filing deadline, the response rate of the JPRS respondents is over 90 percent. All companies that have not responded are contacted by telephone. Although data are taken by telephone to expedite processing, a certified submission is still required. Thirty calendar days after the report month, data for companies that still fail to file the form are estimated based on prior month's data. Names of companies that fail to file for two consecutive months are forwarded to DOE for further noncompliance action. Final response rate is 100 percent.

Report Type **B 0 1** EIA Company Identification No. Report Period  Yr.  Mo **SECTION 6. REFINERY STOCKS, RECEIPTS, INPUTS, PRODUCTION, SHIPMENTS AND REFINERY FUEL USE AND LOSSES**  
(Thousands of Barrels of 42 Gallons)

ITEM DESCRIPTION	PRO DUCT CODE	STOCKS BEGINNING OF MONTH	RECEIPTS DURING MONTH	INPUTS DURING MONTH	PRODUCTION DURING MONTH	SHIPMENTS DURING MONTH	REFINERY FUEL USE AND LOSSES DURING MONTH	STOCKS END OF MONTH
		A	B	C	D	E	F	G
Crude oil (incl. lease condensate)	050				X			
Total (sum of codes 010 and 020)								
Domestic (incl. Alaskan)	010	X		X	X	X	X	X
Foreign	020	X		X	X	X	X	X
Alaskan	011	X		X	X	X	X	X
Products of natural gas proc. plants								
Ethane	110				X			
Propane	231				X			
Ethane-propane mixtures	241				X			
Isobutane	233				X			
Normal butane	235				X			
Other butanes	236				X			
Butane - propane mixtures	234				X			
Natural gasoline and isopentane	220				X			
Plant condensate	210				X			
Unfractionated stream	227				X			
Other hydrocarbons and hydrogen								
Alcohol	091				X			
Unfinished oils	812							
Gasoline								
Finished leaded, motor	132							
Finished unleaded, motor	133							
Blending components, motor	134							
Gasohol	135							
Finished aviation	111							
Blending components, aviation	112							
Special naphthas (solvents)	051							
Jet fuel								
Naphtha-type	211							
Kerosene-type	213							
Kerosene (incl. range oil)	311							
Distillate fuel oil Less No. 4	412							
No. 4 fuel oil	414							
Residual fuel oil	511							
Lubricating oils								
Bright stock	853							
Neutral	855							
Other	859							
Asphalt	900							
Wax								
Microcrystalline	061							
Crystalline-fully refined	071							
Crystalline-other	081							
Petroleum coke								
Marketable	021							
Catalyst	022							
Road oil	031							
Still gas								
Petrochemical feedstock use	042							
Other use	044							
Ethane and/or ethylene								
Petrochemical feedstock use	612							
Other use	652							
Propane and/or propylene:								
Petrochemical feedstock use	613							
Other use	653							
Butane and/or butylene:								
Petrochemical feedstock use	614							
Other use	654							
Butane-propane mixtures								
Petrochemical feedstock use	616							
Other use	656							
Isobutane petrochemical feedstock use	615							
Naphtha - less than 400° end point								
Petrochemical feedstock use	822							
Other oils - over 400° end-point								
Petrochemical feedstock use	824							
Other finished products								
Non - fuel use	097							
Fuel Use	098							
Overage (Inputs) or shortage (production)	911							
TOTAL	999							

## **Note 1.3 EIA-161, 162, 163, 164 and 165: Weekly Petroleum Reporting System**

### **Background**

The Weekly Petroleum Reporting System (WPRS) comprises five surveys: the "Refinery Report" (EIA-161); the "Bulk Terminal Stocks Report" (EIA-162); the "Pipeline Product Stock Report" (EIA-163); the "Crude Oil Stocks Report" (EIA-164); and the "Imports Report" (EIA-165).

The EIA weekly reporting system was designed to collect data similar to those collected under the monthly Joint Petroleum Reporting System (JPRS) (See Note 1.2). In the WPRS, selected petroleum companies report weekly data to EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On the Forms EIA-161 through EIA-164, companies report data on a custody basis. On the Form EIA-165, the importer of record reports each shipment entering the United States. Current weekly data and the most recent monthly data from the JPRS are used to estimate the published weekly totals.

### **Description of Survey**

#### **Universe**

The sample of companies that report weekly in the WPRS was selected from the universe of companies that report monthly in either the JPRS system or the ERA-60 system (for imports). All sampled companies report data only for facilities in the 50 States and the District of Columbia.

The sampling frame for each weekly survey is defined as follows:

**EIA-161:** Uses the EIA-87 universe, which includes all petroleum refineries in the United States and its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and bulk terminals that blend motor gasoline.

**EIA-162:** Uses the EIA-88 universe, which includes all bulk terminal facilities in the United States and its territories that have total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline.

**EIA-163:** Based on the EIA-89 universe, which includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that only transport natural gas liquids are not included in the EIA-163 frame. Only those pipeline companies which transport products covered in the weekly survey are included.

**EIA-164:** Uses the EIA-90 universe, which consists of all trunk pipeline companies in the United States and its territories which transport crude oil, all refining companies, all crude oil producers, all terminal operators, and all storers of 1,000 barrels or more of crude oil.

**EIA-165:** Uses the ERA-60 universe, which includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico.

#### **Sampling**

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for the previous time period.

#### **Collection Methods**

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. All canvassed firms and terminal operating companies must file by 5:00 p.m. on the Monday following the close of the report period, 7 a.m. Friday. During the processing week, company corrections of the prior week's data are also entered.

### Formula and Calculations

After the company reports have been checked and entered into the weekly data base, ratio estimates of the weekly totals are calculated from the reported data.

First, the current week's data for a given product reported by companies in that region are summed. (Call this weekly sum,  $W_s$ .) Next, the most recent month's data for the product reported by those same companies are summed. (Call this monthly sum,  $M_s$ .) Finally, let  $M_t$  be the sum of the most recent month's data for the product as reported by *all* companies. Then, the current week's ratio estimate for that product for all companies is given by.

$$W_t = \frac{M_t}{M_s} \circ W_s$$

This procedure is used directly to estimate total weekly inputs to refineries and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Under such conditions, the ratio method is known to result in large errors. Hence, a number of other procedures for estimating weekly imports were considered. The average ratio method was selected for estimating imports because it produces estimates that were close to benchmark values computed from monthly data. Estimates are obtained using the ratio method, but with each company in turn omitted from the sample. These estimates are then averaged to obtain the average ratio estimate.

### Imputing Missing Data

The ratio method of estimation automatically imputes for nonresponse. Data from companies that do not respond are excluded from both the weekly and the monthly totals for the sampled companies.

### Response Rates

The response rate as of the day after the filing deadline is about 80 percent for the EIA-161; 75 percent for the EIA-162; 95 percent for the EIA-163; 80 percent for the EIA-164; and greater than 95 percent for the EIA-165. However, more forms are received the next day, bringing the final response rates up. Late respondents are contacted by telephone. Nearly all of the major companies report on time. The nonresponse rate for the published estimates is usually between 2 percent and 5 percent.

## Note 1.4 EIA-170: Tanker and Barge Shipments of Crude Oil and Petroleum Products Between Districts

### Background

The EIA-170 survey collects data for calculation of monthly petroleum supply and disposition figures on U.S. and PAD District levels.

### Instrument and Design

This form is designed to collect data on total movements by tanker and barge of crude oil and petroleum products between PAD Districts or between PAD Districts and the Panama Canal, by shipping State and receiving State.

### Universe

The respondent universe of the EIA-170 consists of all known companies and plants that have custody of crude oil and petroleum products transported by tanker and barge between PAD Districts or between PAD Districts and the Panama Canal. There are currently about 60 respondents.

### **Collection Methods**

Survey data are collected by mail every month. The filing deadline is the 20th calendar day of the month following the report period. The response rate as of the filing deadline is about 98 percent. Late respondents are contacted by telephone. All responses are processed each month before release of the data for publication.

## **Note 1.5 ERA-60: Reports of Oil Imports into the United States and Puerto Rico**

### **Background**

The "Report of Oil Imports into the United States and Puerto Rico" (ERA-60) survey was designed by the Economic Regulatory Administration (ERA) of the Department of Energy to collect data on port of entry, country of origin, destination, and quantity of imported crude oil and petroleum products, as well as sulfur content and API gravity. All licensed importers and importers of record are required to report. The "Shipments of Refined Products from Puerto Rico to the United States" (P-133-M-O) survey was designed to collect data on imports to the United States that are not covered by the ERA-60.

### **Universe**

The monthly submission of Form ERA-60 and P-133-M-O is required by all licensed importers and importers of record into the United States and Puerto Rico. The respondent universe consisted of approximately 750 firms as of June 30, 1981. The respondent universe for these surveys is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

### **Collection Methods**

The survey data are collected by mail each month. It is mandatory for each respondent to file the ERA-60/P-133-M-O by the 15th working day of the month following the reporting period. Resubmissions are received frequently and are processed when received.

### **Response Rates**

In December 1980, the survey had a response rate of 92 percent by the filing deadline. The universe was 640 at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard followup of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. Response rate is generally 98-99% by the time the data are first published. Revised publications are not generated as standard operating procedure. The ERA-60 file is never closed; resubmissions are constantly received and processed.

## **Note 1.6 Census Import (IM-145) and Export (EM-522 and EM-594) Tabulations**

The foreign trade statistics program, conducted by the Bureau of the Census, involves compilation and dissemination of a large body of data relating to the imports and exports of the United States.

### **Import Statistics**

#### **Coverage**

The import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. Customs territory (includes the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

1. Merchandise shipped in transit through the United States, when documented with Customs as an intransit movement.
2. Shipments between the United States and Puerto Rico, the Virgin Islands, Guam, American Samoa, and other U.S. possessions; shipments between any of these outlying areas; and imports into U.S. possessions from foreign countries.
3. U.S. merchandise returned by U.S. Armed Forces for their own use.

#### **Source of Import Information**

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501- 7505).

Imported petroleum is reported as "Imports for Consumption." Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

#### **Country and Area of Origin**

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

### **Export Statistics**

#### **Coverage**

The export statistics reflect both government and nongovernment exports of domestic and foreign merchandise from the U.S. Customs territory (includes the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

1. Shipments between the United States and Puerto Rico, the Virgin Islands, Guam, American Samoa, and other U.S. possessions; between any of these outlying areas; and shipments from U.S. Possessions to foreign countries.
2. Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
3. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

#### **Source of Export Information**

The official U.S. export statistics are compiled by the Bureau of the Census primarily from copies of Shipper's Export Declarations. Shipper's Export Declarations are required to be filed with Customs officials, except when qualified exporters have been authorized to submit data in the form of magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations directly to the Bureau of the Census.

#### **Country and Area of Destination**

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

## Note 2 Estimation

The geographic coverage of all estimates is the 50 United States and the District of Columbia, including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

### Note 2.1 Supply

The components of petroleum supply are field production, refinery production, imports, stock withdrawal or addition, crude oil used directly, and losses.

**Field Production** is the sum of crude oil (including lease condensate) production, natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation and revenue agencies. Reports of crude oil production from each of the 31 producing States are not received until several months after the other components of petroleum supply described in Explanatory Note 2.1 are available for publication. For an explanation of the crude oil estimation procedure used until the State reports are complete, see Explanatory Note 2.2.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-64, "Natural Gas Liquids Operation Report." Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.1.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-64, "Natural Gas Liquids Operations Report." Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.1.

**Refinery Production** of LRGs, ethane, and finished petroleum products is reported monthly on survey Form EIA-87, "Refinery Report." Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Refinery production is also reported weekly on survey Form EIA-161, "Refinery Report." See Explanatory Notes 1.2 and 1.3 for survey descriptions and other detail. It should also be noted that refineries do not report production of crude oil, natural gasoline, isopentane, unfractionated stream, plant condensate, or other hydrocarbons and alcohol.

**Imports** of crude oil and petroleum products are reported monthly on Form ERA-60, "Report of Oil Imports into the United States and Puerto Rico," and Form P-133-M-O, "Shipments of Refined Products (including unfinished oils) from Puerto Rico to the United States." In addition, the Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501 and 7505. The most prominent difference between the EIA and Census systems appears in imports of liquefied petroleum gases (LPG), where Census data show a much higher level of imports than Energy Information Administration data. This occurs because the ERA-60 respondent frame was built by monitoring importers of licensed products and because LPGs are not licensed products. Therefore, respondents that only import LPGs have not been identified, and do not report these imports to the Department of Energy. Since these importers are required to file form 7501 with the U.S. Customs Service, EIA obtains data on imports of LPGs from Census Tabulation IM-145. Additional data taken from the IM-145 are relatively small quantities of naphtha and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade and for military offshore use. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the ERA-60 reporting system.

Imports are also reported weekly on survey Form EIA-165, "Imports Report." See Explanatory Notes 1.3, 1.5, and 1.6 for survey descriptions and other detail.

**Stock Withdrawal (+) or Addition (-)** is calculated by subtracting stocks at the end of the month from stocks at the beginning of the month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks and an increase in petroleum supplies distributed for domestic consumption. A negative result (-) would represent a buildup of stocks and reduce petroleum supplies distributed for domestic consumption. For survey forms used to make stock withdrawal or addition calculations see Explanatory Note 2.4.

**Unaccounted-for Crude Oil** is a balancing item that represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production, imports and stock withdrawal or addition, less crude used directly and losses. Crude oil disposition is the sum of exports and refinery input.

Unaccounted-for crude oil is calculated by subtracting crude oil supplies from crude oil disposition. A negative result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used. This calculation is performed for crude oil to ensure that product supplied for crude oil is always zero.

**Crude Oil Used Directly and Losses** is the sum of crude oil losses at refineries, crude oil burned at refineries, and crude oil burned on leases. Crude oil losses and consumption at refineries are reported on Form EIA-87, "Refinery Report." Crude oil burned on leases is reported on Form EIA-90, "Crude Oil Stocks Report." Crude oil burned on leases is divided into two categories: crude burned as residual fuel oil and crude burned as distillate fuel oil. Crude burned on leases appears as a negative supply to crude oil (a reduction in crude oil supplies) and as a positive supply to residual and distillate fuel oil (an increase to these supplies).

## Note 2.2: Domestic Crude Oil Production

Data for the Crude Oil Production System (COPS) are reported to the Department of Energy by each of the individual State conservation agencies, which collect crude oil production values for tax purposes. In addition, the U.S. Geological Survey reports the volume of crude oil that is produced offshore in Federally-owned waters. With the exception of six State conservation agencies, all of these reports are received monthly. After each calendar year, these monthly numbers are updated using the annual reports from the State conservation agencies and the U.S. Geological Survey. The six States that do not report monthly values are Indiana, New York, Ohio, Pennsylvania, West Virginia, and Wyoming. Monthly values are estimated for these States using the individual linear trends of their historical annual crude oil production values.

There is a time lag of approximately 3 to 4 months between the end of the reporting month and the time when the actual values are available for this publication. In order to provide more timely crude oil production estimates, the Department of Energy has established a series of statistical models that forecast the volume of crude oil production based on the historical production patterns. The models use Auto Regressive Integrated Moving Average (ARIMA) to analyze series of monthly crude oil production values collected over several years.

In order to provide detailed crude oil production information on both the PAD District level and for the major producing States, the total United States crude oil production volume was separated into nine distinct groupings. The nine different time series are the monthly reported crude oil production volumes for: (1) all the States in PAD District 1; (2) all the states in PAD District 2; (3) Texas; (4) Louisiana; (5) the States in PAD District 3 excluding Texas and Louisiana; (6) all the States in PAD District 4; (7) Alaska; (8) California; and (9) the States in PAD District 5 excluding Alaska and California. Monthly data collected beginning in January 1973 are used for each of these time series.

A separate ARIMA model is identified for each time series. New model parameters are estimated monthly for each of these nine updated time series. Then, these ARIMA models are used to forecast crude oil production volumes for the month of interest. These values are then aggregated into PAD District and national totals. The forecasts made during 1981 had an average error of less than 0.6 percent compared to the monthly crude oil production volumes eventually reported by the States.

## Note 2.3 Disposition

The components of petroleum disposition are refinery input, exports, and products supplied for domestic consumption.

**Refinery Inputs** of crude oil, NGPL and other liquids are reported monthly on survey Form EIA-87, "Refinery Report." Published inputs of unfinished oils, and motor and aviation gasoline blending components, equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production. Refinery inputs are also reported weekly on survey Form EIA-161, "Refinery Report." See Explanatory Notes 1.2 and 1.3 for survey description and other details.

**Exports** of crude oil and petroleum products are compiled from Census Bureau tabulations EM522 and EM594. Exports include crude oil shipments to Puerto Rico, the Virgin Islands, and the Hawaiian Foreign Trade Zone, which are obtained from refinery receipts reported on Form EIA-87.

**Product supplied** for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, plus crude oil used directly and losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply. Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative when total disposition of that product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported, (2) misreporting or delayed reporting of data, and (3) for calculations on a PAD District basis, incomplete coverage of interdistrict movements data compiled to calculate net receipts.

## Note 2.4 Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-87, "Refinery Report," and Form EIA-90, "Crude Oil Stocks Report." Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in transit is also included. Stocks of crude oil are also reported weekly on Form 161, "Refinery Report," and Form EIA-164, "Crude Oil Stocks Report." Primary stocks of petroleum products are summed from data reported on the Form EIA-64, "Natural Gas Liquids Operations Report," Form EIA-87, "Refinery Report," Form EIA-88, "Bulk Terminal Stocks Report," and Form EIA-89, "Pipeline Products Stocks Report." Primary stocks of petroleum products do not include secondary stocks held by dealers and jobbers, or stocks held by consumers. Petroleum product stocks are also reported weekly on Form EIA-161, "Refinery Report," Form EIA-162, "Bulk Terminal Stocks Report," and Form EIA-163, "Pipeline Products Stocks Report." For survey descriptions and other details see Explanatory Notes 1.1., 1.2, and 1.3.

## Note 2.5 Average Stock Levels

The graphs displaying monthly stock levels of petroleum products, crude oil, motor gasoline, distillate fuel oil, residual fuel oil, liquified petroleum gases and ethane, and other products provide the user with recent data as well as a summary of data from the most recent 3 year period from January through December or from July through June. This summary takes the form of an "average range" that includes seasonal variation determined from a longer time period. The average range represents the historical pattern; it is not a forecast.

These curves are updated every 6 months effective January 1 or July 1 by basing the "average ranges" on a more recent time period. At that time, each 3-year data series will be adjusted by dropping the first 6 months and including the most recent 6 months.

For each data series, the monthly seasonal factors were estimated by means of a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors were assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported stock levels). The intent of deseasonalization is to remove only seasonal variation from the data. Thus, a deseasonalized series would contain the same trends and irregularities as the original data. For crude oil stocks, the derived seasonal factors were very small relative to crude oil stock levels. Therefore, the seasonal factors for crude oil stock levels were set to zero. The seasonal factors for total petroleum (crude and products), distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane, and other products were derived using monthly data from 1974-1980. For motor gasoline, the seasonal factors were based on monthly data from 1975, 1976, 1978, 1979 and 1980. In 1977, there was virtually no seasonal behavior in motor gasoline stocks. Monthly stock levels stayed at the same high level for the entire year. In addition, the seasonal patterns in 1973 and 1974 appeared to be different from those in recent years. It was therefore assumed that the seasonal patterns in 1973, 1974, and 1977 were not representative of the recent past, and these years were not used in the determination of seasonal patterns for motor gasoline stocks. Because of these differences in the year-to-year seasonal fluctuation of motor gasoline, the evidence for the illustrated seasonal patterns for total petroleum (crude and products), crude oil, distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane, and other products is stronger than is the evidence for the illustrated seasonal patterns for motor gasoline.

In some cases, these seasonal patterns do not show a smooth transition from month to month. For example, the June factor for residual fuel oil is slightly less than the May and July values, making a bump in the curve. As there is little difference in the magnitude of these seasonal factors, it is possible that this variation is due to the small number of observations (7 years) and the data variability.

After seasonal factors are derived, the most recent 3 year period (from January through December or from July through June) is deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard error of the deseasonalized 36 months is calculated adjusting for extreme data points. The width of the "average range" is twice this standard error.

The upper curve of the "average range" is defined as the average plus the seasonal factors plus the standard error. The lower curve is defined as the average plus the seasonal factors minus the standard error.

## Note 2.6 Movements

Movements of crude oil between PAD Districts are reported on Form EIA-170, "Tanker and Barge Report." Petroleum product movements are reported on Forms EIA-170 and EIA-89, "Pipeline Products Report." Net receipts are calculated by summing total movements into and total movements from each PAD District by pipelines, tankers, and barges, and subtracting for the difference. Movements of crude oil by pipeline are not reported. For survey descriptions and other detail, see Explanatory Notes 1.2 and 1.4.

## Note 2.7 Preliminary Monthly Statistics

Data from the Weekly Petroleum Reporting System (Forms EIA-161, 162, 163, 164 and 165) are used to estimate the most recent monthly values for the historical statistics. Since some of the weekly reporting periods overlap 2 adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To calculate monthly estimates of crude oil and petroleum product imports, crude oil input to refineries, and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel and residual fuel) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the 2 weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of earlier of the 2 weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 2.2.

### Note 3 Accuracy of Petroleum Supply Data

Early in 1981, the Energy Information Administration completed an assessment of the accuracy of principal petroleum supply data series. <sup>1</sup>This assessment concentrated on two methods of analysis:

- Comparisons between EIA's final annual estimates published in the *Petroleum Statement Annual (PSA)* and annual estimates from independent sources.

- Comparisons between EIA's final monthly estimates published in the *PSA* and EIA's earlier estimates published in the *Monthly Petroleum Statistics Report* and the *Petroleum Statement, Monthly* (predecessor of the *Monthly Petroleum Statement*).

Selected excerpts from these comparisons are presented below.

#### Comparisons of Annual Estimates

All of the systems that provide data for the *Petroleum Supply Monthly*, except for the weekly systems, try to collect data from the entire universe of their potential respondents. They do not sample, and have no sampling errors. Inaccuracies in the data still occur because of problems such as incomplete lists of respondents, errors in the responses, and conceptual errors in the design of the data systems. Such inaccuracies are hard to identify and even harder to quantify. Some understanding of the overall accuracy of the estimates can be achieved by comparing estimates derived from independent sources of data, as shown in the following tables. Close agreements among annual estimates from several independent sources support the conclusion that the estimates are accurate, and accuracy in the annual estimates implies accuracy in the monthly estimates that comprise the annual estimates.

#### Crude Oil Production

Comparisons among independent estimates of annual crude oil and lease condensate production lead to the conclusion that the *PSA* estimates are probably accurate to within 1 percent.

#### Crude Oil Imports

Comparisons among independent estimates of annual crude oil imports lead to the conclusion that the *PSA* estimates are probably accurate to within 1 percent. This conclusion is supported by a study of EIA and Customs/Census import data performed for EIA.<sup>2</sup>

#### Motor Gasoline Supplied

Comparisons among independent estimates of the annual volume of motor gasoline supplied for domestic use show that differences in the estimates grew between 1977 and 1979. By 1979, the EIA estimate of sales by refiners and the Environmental Protection Agency's estimate of production had grown about 5-7 percent larger than the comparable *PSA*, Lundberg, and American Petroleum Institute (API) estimates. Research conducted by EIA in 1979 and 1980<sup>3</sup> confirmed that the lower

<sup>1</sup>*An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292, June 1981.

<sup>2</sup>Maxima Corporation, *Petroleum Imports Reporting Systems, Preliminary Draft*, (Silver Spring, Maryland: February 1980). Prepared for the Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, Washington, D.C.

<sup>3</sup>Office of Energy Information Validation, *Energy Information Administration, U.S. Department of Energy, An Evaluation of Published EIA Gasoline Supply Estimates* (Washington, D.C.: April 1980).

estimates were inaccurate, and identified changes in the petroleum industry that had an adverse effect on the *PSA* estimate. During 1980, EIA developed and tested improved procedures for collecting petroleum supply data, and implemented them in January 1981. (See Explanatory Note 4.)

### Distillate Fuel Oil Supplied

Comparisons among independent estimates of the annual volume of distillate fuel oil supplied for domestic use lead to the conclusion that the *PSA* estimates are probably accurate to within 1 to 2 percent.

### Residual Fuel Oil Supplied

Comparisons among independent estimates of the annual volume of residual fuel oil supplied for domestic use seem to show sizable and consistent differences between the EIA estimates of sales by refiners and the *PSA* and API estimates. When imports of residual fuel oil by nonrefiners are added to the refiner sales, however, the difference between refiner sales and the *PSA* estimates are narrowed to within 1 percent. The comparisons therefore lead to the conclusion that the *PSA* estimates are probably accurate to within 1 to 2 percent.

### Comparison of Estimates of the Volume of Crude Oil and Lease Condensate Production, 1977-1979

	Estimated Volume of Production in Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Comparative Estimate as a Percent of the <i>PSA</i> Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from Petroleum Statement Annual <sup>b</sup>	3,121	3,178	3,009	///	///	///
<u>Comparative Estimates</u>						
American Petroleum Institute Estimate from API Monthly Statistical Report <sup>c</sup>	3,130	3,214	3,021	100.3%	101.1%	100.4%
Census Estimate from the Annual Survey of Oil and Gas <sup>d</sup>	—	3,148	3,016	—	99.1%	100.2%
Oil and Gas Journal Estimates <sup>e</sup> of Total Production derived from Monthly Data	3,168	3,165	3,005	101.5%	99.6%	99.9%
EIA Estimate from Annual Survey of Oil and Gas Reserves (EIA-23) <sup>f</sup>	3,102	3,144	3,001	99.4%	98.9%	99.7%

/// = Not applicable

— = Not available

<sup>a</sup>Volumes are rounded to the nearest million barrels.

<sup>b</sup>From Table 6 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979.

<sup>c</sup>From issues of the American Petroleum Institute's *Monthly Statistical Report*. The annual values were obtained by summing the monthly values for each of the twelve-month periods.

<sup>d</sup>From Table 1, p.2 of the Bureau of Census' *Annual Survey of Oil and Gas*, 1978.

<sup>e</sup>From issues of the *Oil and Gas Journal*. Monthly estimates are in thousands of barrels per day. They are converted to millions of barrels by dividing by 1,000 and multiplying by the number of days in the reporting period.

<sup>f</sup>From EIA's *U.S. Crude Oil and Natural Gas Reserves 1979 Annual Report* (Table 19, p. 33), *1978 Annual Report* (Table 16, p. 20), and *1977 Annual Report* (Table 22, p.36).

Geographic coverage: the 50 United States and District of Columbia with adjacent areas of the Outer Continental shelf.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

# Comparison of Estimates of the Volume of Crude Oil Imports, 1977-1979

	Volume of Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Comparative Estimates as a Percent of the Primary Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate of Receipts at Ports of Entry (ERA-60) from <i>Petroleum Statement, Annual</i> <sup>b</sup>	2,380	2,320	2,414	///	///	///
<u>Comparative Estimates</u>						
American Petroleum Institute Estimate of Receipts as Reported by Refiners <sup>c</sup>	2,346	2,323	2,360	98.6%	100.1%	97.8%
Customs/Census Estimate of Receipts at Ports of Entry (Customs Forms 7501 and 7502) <sup>d</sup>	2,415	2,338	2,431	101.5%	100.8%	100.7%
EIA Estimate of Inputs of Foreign Crude at Refineries (ETA-87) <sup>e</sup>	2,364	2,334	2,431	99.3%	100.6%	100.7%

/// = Not applicable

<sup>a</sup>Volumes are rounded to the nearest million barrels.

<sup>b</sup>From Table 1 in EIA's *Petroleum Statement Annual* 1977, 1978, 1979. This table also includes imports for the Strategic Petroleum Reserve (SPR) which were 7.5 million in 1977, 58.8 million in 1978, and 24.4 million in 1979.

<sup>c</sup>Estimate equals the sum of the annual estimate of imports derived from API's *Monthly Statistics Report* (which excludes imports for SPR), and the EIA estimates for imports for the SPR which are listed in footnote b above. The annual estimates from API data are equal to the sum of the API monthly estimates weighted by the number of days in each month.

<sup>d</sup>Data on imports to Puerto Rico which are included in the source for these estimates have been excluded from these estimates in keeping with the geographic coverage of the table. Data are from computer printouts of the Bureau of Census Report IM-245-X dated April 3, 1980 (1977 and 1978 data) and December 19, 1980 (1979 data).

<sup>e</sup>Estimate equals refinery inputs of foreign crude plus (minus) stock increases (decreases) of foreign crude. The data for the computation are published in EIA's *Petroleum Statement, Annuals*. The stock changes (all increases) are derived from data on stocks of crude oil at refineries, bulk terminals, and pipelines as reported on Form EIA-90, plus the increase in the SPR. This estimate excludes crude oil imported and not used as refinery input.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

**Comparison of Estimates of the Volume of Motor Gasoline Supplied for Domestic Use, 1977-1979**

	Volume in Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Volume Supplied as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement, Annual</i> <sup>b</sup>	2,573	2,711	2,625	///	///	///
<b>Comparative Estimates</b>						
EIA Estimate of Sales by Refiners (P-306) <sup>c</sup>	2,708	2,792	2,671	105.2%	103.0%	101.8%
Environmental Protection Agency Estimate derived from Production Data <sup>d</sup>	2,766	2,851	2,706	107.5%	105.2%	103.1%
Lundberg Surveys, Inc. Estimate of U.S. Motor Gasoline Sales <sup>e</sup>	2,631	2,746	2,656	102.3%	101.3%	101.2%
American Petroleum Institute Estimate of Deliveries <sup>f</sup>	2,579	2,697	2,612	100.2%	99.5%	99.5%

/// = Not applicable

<sup>a</sup>Volumes are rounded to the nearest million 42-U.S. gallon barrels.

<sup>b</sup>Derived from Table 2 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979.

<sup>c</sup>Derived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products* 1977, 1978, 1979.

<sup>d</sup>The estimate shown is derived by substituting EIA Domestic Production values with values of domestic production tabulated from the Environmental Protection Agency Bq. Form 3520-2, "Lead Additive Report for Refineries." The EPA production estimates are 2,694 million barrels in 1977, 2,757 in 1978, and 2,648 in 1979 as compared from a summary sheet provided by Mr. Bob Summerhayes of EPA.

<sup>e</sup>From the mid-June issues of the "National Petroleum News," 1979 and 1980.

<sup>f</sup>API publishes monthly estimates in thousands of barrels per month of the volume of motor gasoline delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of motor gasoline multiplied by the number of days per month.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

**Comparison of Estimates of the Volume of Distillate Fuel Oil (Including Kerosene) Supplied for Domestic Use, 1977-1979**

	Volume in Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Volume Supplied as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement Annual</i> <sup>b</sup>	1,269	1,307	1,275	///	///	///
<b>Comparative Estimates</b>						
EIA Estimate of Sales by Refiners (P-306) <sup>c</sup>	1,282	1,275	1,242	101.0%	97.6%	97.4%
American Petroleum Institute Estimate of Deliveries <sup>d</sup>	1,291	1,300	1,277	101.7%	99.5%	100.2%

/// = Not applicable

<sup>a</sup>Volumes are rounded to the nearest million 42-U.S. gallon barrels.

<sup>b</sup>Derived from Table 2 in EIA's "Petroleum Statement Annual", 1977, 1978, 1979.

<sup>c</sup>Derived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products*, 1977, 1978, 1979.

<sup>d</sup>API publishes monthly estimates in thousands of barrels per month of the volume of distillate and kerosene delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of distillate and kerosene multiplied by the number of days per month.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

**Comparison of Estimates of the Volume of Residual Fuel Oil Supplied for Domestic Use, 1977-1979.**

	Volume in Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Volume Supplied as a Percent of the PSA Estimates		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement, Annual</i> <sup>b</sup>	1,024	1,095	1,109	///	///	///
<b>Comparative Estimates</b>						
EIA Estimate of Sales by Refiners (P-306) <sup>c</sup>	796	832	847	80.8%	79.6%	80.1%
American Petroleum Institute Estimate of Deliveries <sup>d</sup>	1,044	1,101	1,114	102.0%	100.5%	100.4%

/// = Not Applicable

<sup>a</sup>Volumes are rounded to the nearest million 42-U.S. gallon barrels.

<sup>b</sup>Derived From Table 2 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979. Refinery fuel use, subtracted from the figures in the source referenced below, has been reinstated in these estimates.

<sup>c</sup>Derived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products*, 1977, 1978, 1979.

<sup>d</sup>API publishes monthly estimates in thousands of barrels per month of the volume of residual fuel oil delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of residual fuel oil multiplied by the number of days per month.

Geographic Coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

## Comparisons of Monthly Estimates Over Time

Inaccuracies in petroleum data resulting from incomplete or delayed reports from respondents and from data processing errors are usually eliminated from the final PSA estimates. Such inaccuracies can still have important effects on the monthly estimates published in the *Petroleum Supply Monthly* and its predecessors. The following tables compare the initial monthly estimates published in the *Monthly Petroleum Statistics Report* and the *Petroleum Statement, Monthly* with the final monthly estimates published in the PSA. During 1977-1979, the *Monthly Petroleum Statistics Report* was published about 60 days after the end of the reporting month, and the *Petroleum Statement, Monthly* was published about 120-150 days after the end of the reporting month. The tables show that, both in terms of bias and in terms of standard deviation, the later estimates are consistently more accurate than the earlier estimates. In spite of this, the earlier estimates may have been more valuable to users of energy information because of the large difference in timeliness.

For purposes of comparison, the *Petroleum Supply Monthly* is scheduled to be published on about the same time lag as the *Monthly Petroleum Statistics Report*. Caution should be exercised, however, in drawing conclusions from this similarity. The *Petroleum Supply Monthly* uses improved data processing procedures developed and successfully implemented during 1981. In addition, since 1979, EIA has greatly improved the accuracy of its 60-day crude oil production estimates and is making progress in improving the accuracy of its 60-day import estimates.

**Initial Monthly Estimates of Production, Stocks, and Imports of Crude Oil As A Percent of EIA's Final Published Estimates <sup>a</sup>  
January 1977 - December 1979**

	Production During Month		Primary Stocks At End of Month		Imports During Month	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report</i> <sup>b</sup>	# 98.7%	1.6%	# 98.3%	1.4%	# 95.4%	2.4%
EIA's Estimates from the <i>Petroleum Statement, Monthly</i> <sup>c</sup>	# 99.6%	0.6%	100.0%	0.1%	# 98.4%	1.3%

**Initial Monthly Estimates of Products Supplied for Domestic Use as A Percent of EIA's Final Published Estimates <sup>a</sup>  
January 1977 - December 1979**

	Motor Gasoline		Distillate Fuel Oil		Residual Fuel Oil	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report</i> <sup>b</sup>	99.9%	1.3%	99.9%	2.3%	# 97.9%	2.7%
EIA's Estimates from the <i>Petroleum Statement, Monthly</i> <sup>c</sup>	100.0%	0.3%	99.7%	0.5%	99.4%	1.2%

**Initial Monthly Estimates of End-of-Month Primary Stocks As a Percent of EIA's Final Published Estimates <sup>a</sup>  
January 1977 - December 1979**

	Motor Gasoline		Distillate Fuel Oil		Residual Fuel Oil	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report</i> <sup>b</sup>	99.7%	0.8%	99.7%	1.1%	100.1%	0.7%
EIA's Estimates from the <i>Petroleum Statement, Monthly</i> <sup>c</sup>	99.9%	0.2%	100.0%	0.1%	100.1%	0.5%

# Represents a difference from 100% found to be statistically significant at the 95% level of confidence (n = 36).

<sup>a</sup>Final monthly estimates are from the "Petroleum Statement, Annual" for 1977, 1978 and 1979. The mean percent is calculated as follows: each preliminary estimate is first expressed as a percent of EIA's final published estimate, these are then summed and the sum is divided by the number of estimates. The standard deviation is the square root of the quantity computed by summing the squared deviation of the percents from the mean percent and then dividing by the number of percents.

<sup>b</sup>Based on 36 initial estimates appearing in issues dated January 1977 - December 1979.

<sup>c</sup>Based on 36 initial estimates appearing in issues dated January 1977 - December 1979.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

## Note 4 Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting systems.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings throughout 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

### Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. This difference increased to about 4 percent in 1979 and 5 percent in 1980. There are two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference—in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied. EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years. EIA has recently published a study of the quality of these FHWA data.<sup>1</sup>

<sup>1</sup>Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *Error Profile of the Motor Fuel Taxation Data used to Establish and Monitor State Emergency Conservation Targets* (Washington, D.C.: December, 1981).

**Finished Motor Gasoline Product Supplied on Old and New Basis  
(Thousand Barrels per Day)**

	1979				1980			
	EIA Reported	API Recast	EIA Recast	FHWA <sup>1</sup>	EIA Reported	API Recast	EIA Recast	FHWA <sup>1</sup>
Jan	6,830	7,230	7,084- 7,246	6,984	6,323	6,789	6,630- 6,791	6,672
Feb	7,254	7,496	7,389- 7,568	7,538	6,596	6,983	6,831- 7,003	6,830
Mar	7,229	7,414	7,301- 7,463	7,316	6,406	6,753	6,607- 6,768	6,713
Apr	7,055	7,300	7,187- 7,353	7,375	6,800	7,014	6,886- 7,052	6,981
May	7,213	7,429	7,313- 7,475	7,428	6,729	6,954	6,823- 6,984	7,044
Jun	7,191	7,483	7,350- 7,516	7,441	6,657	6,966	6,824- 6,991	7,049
Jul	6,902	7,241	7,105- 7,266	7,299	6,743	6,973	6,960	7,132
Aug	7,330	7,546	7,426- 7,588	7,619	6,648	6,841	6,828	7,090
Sep	6,881	7,122	7,016- 7,262	7,232	6,510	6,692	6,962	6,685
Nov	6,791	7,068	6,956- 7,122	7,142	6,234	6,507	6,516	6,951
Dec	6,730	7,106	6,966- 7,127	7,064	6,632	6,948	6,936	6,993
<b>Average</b>	7,034	7,302	7,183- 7,347	7,309	6,579	6,882	6,806- 6,889	6,925

<sup>1</sup>FHWA gasoline statistics published in their 1979 Table MF-33G, 08-06-80, contain aviation gasoline as well as motor gasoline. Only motor gasoline data are included in published 1980 data. Consequently, the 1979 data shown above were reduced by subtracting aviation gasoline product supplied quantities as published by EIA in the 1979 *Petroleum Statement Annual*. The 1980 FHWA data published in their 1980 Table MF-33GA, August 1981, did not require this adjustment.

### Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oil produced by a refinery is shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981 this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1980 as published (adjusted) and on the same basis as 1981 statistics are now being completed (unadjusted) to permit comparison between 1980 and 1981 data series. Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

**Adjusted and Unadjusted Refinery Production, and Unadjusted Product Supplied of Distillate and Residual Fuel Oils, by Month for 1979 and 1980 (Thousand Barrels Per Day)**

**1979**

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,043	3,108	65	4,646	1,912	1,946	34	3,594
Feb.	2,888	2,945	57	4,869	1,792	1,822	30	3,625
Mar.	3,019	3,026	7	3,671	1,719	1,723	4	3,243
Apr.	2,945	2,978	32	3,048	1,639	1,656	17	2,524
May	3,066	3,093	27	3,025	1,586	1,600	14	2,517
Jun.	3,153	3,187	35	2,743	1,548	1,566	18	2,601
Jul.	3,305	3,344	38	2,601	1,575	1,594	20	2,471
Aug.	3,321	3,359	38	2,799	1,584	1,603	20	2,570
Sep.	3,354	3,306	-48	2,599	1,627	1,602	-25	2,584
Oct.	3,251	3,217	-34	3,085	1,629	1,612	-17	2,523
Nov.	3,239	3,200	-39	3,208	1,736	1,716	-20	2,795
Dec.	3,221	3,238	17	3,725	1,894	1,903	9	3,022
Average	3,152	3,169	16	3,327	1,687	1,695	8	2,834

**1980**

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,013	3,093	80	3,794	1,771	1,812	41	3,108
Feb.	2,766	2,888	122	3,834	1,773	1,836	63	3,168
Mar.	2,557	2,690	133	3,312	1,584	1,652	68	2,726
Apr.	2,460	2,554	94	2,729	1,595	1,643	48	2,492
May	2,474	2,610	136	2,538	1,509	1,579	70	2,305
Jun.	2,646	2,721	75	2,392	1,575	1,613	38	2,359
Jul.	2,689	2,783	94	2,343	1,480	1,528	48	2,339
Aug.	2,461	2,582	121	2,258	1,444	1,506	62	2,348
Sep.	2,686	2,726	40	2,627	1,495	1,516	21	2,380
Oct.	2,589	2,650	61	2,981	1,512	1,543	31	2,258
Nov.	2,703	2,823	120	3,069	1,579	1,641	62	2,513
Dec.	2,891	3,052	161	3,776	1,660	1,743	83	2,762
Average	2,661	2,764	103	2,969	1,580	1,634	54	2,562

**Total Petroleum Products**

The imbalance between the supply and disposition of unfinished oils is now reported as part of the reclassified products (line 39) in the U.S. Petroleum Balance (Table 1). Imbalances between the supply and disposition of gasoline blending components comprise the remainder of the reclassified in Table 1. These imbalances are reported as negative product supplied in the Other Liquids section of the table of Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

## Note 5 Notes on Tables

**5.1 Crude Oil and Petroleum Products Overview** statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (-), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.
- Natural Gas Plant Production is the sum of Natural Gas Plant Liquids and Finished Petroleum Products Field Production in Table 4.
- Petroleum Products Imports is the sum of Natural Gas Plant Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.
- Petroleum Products Exports is the sum of Natural Gas Plant Liquids and LRGs, Other Liquids, and Finished Petroleum Products Exports in Table 4.
- Total Crude Oil and Petroleum Products Ending Stocks appear in thousands of barrels in Table 2.

**5.2 Crude Oil Supply and Disposition** statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Imports Gross Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (-), Unaccounted For Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.
- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousands of barrels in Table 1.
- Total Crude Oil Ending Stocks appear in thousands of barrels in Table 2.
- Total Imports appear in Table 4.

**5.3 Finished Motor Gasoline Supply and Disposition** statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.
- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.
- Ending Stocks appear in thousands of barrels in Table 2.

**5.4 Distillate and Residual Fuel Oil Supply and Disposition** statistics on the referenced lines appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Crude Used Directly, Exports, and Product Supplied appear as labeled in Table 4.
- Ending Stocks appear in thousands of barrels in Table 2.

**5.5 Liquefied Petroleum Gases and Ethane** statistics represent the aggregation of statistics on ethane, propane, butane, butane-propane mixtures, ethane-propane mixtures, and isobutane. The statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousands of barrels in Table 2.

**5.6 Other Petroleum Products Supply and Disposition** statistics represent the aggregation of statistics on natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil. The statistics on the referenced line are aggregated from Table 4 of the Detailed Statistics, except where noted.

- Total Production is the aggregated sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.
- Ending stocks are aggregated from ending stocks in thousands of barrels in Table 2.

#### **Note 5.7 Table 1. U.S. Petroleum Balance**

- Lines (1) through (3) of Table 1: Crude oil (including lease condensate) production for "Alaska," "Lower 48 States," and "Total U.S." are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 2.2), and taking the difference to equal production in the lower 48 states.
- Line (5) of Table 1: SPR imports are reported on Survey Form ERA-60.
- Line (12) of Table 1: "Total Other Sources" equals crude oil stock withdrawal (+) or addition (-) plus unaccounted for crude oil plus crude used as fuel and losses in Table 2.
- Line (14) of Table 1: Natural gas plant liquids (NGPL) "Production" equals field production of natural gas plant liquids (NGPL) plus field production of finished petroleum products in Table 2.
- Line (15) of Table 1: NGPL "Imports" equals the sum of the imports of natural gasoline and isopentane, unfractionated stream, and plant condensate imports in Table 2.
- Line (16) of Table 1: NGPL "Stock Withdrawal (+) or Addition (-)" is equal to the sum of stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate in Table 2.
- Line (17) of Table 1 equals the sum of lines (14), (15), and (16) of Table 1.
- Line (18) of Table 1: unfinished oils and gasoline blending components "Stock Withdrawal (+) or Addition (-)" equals stock withdrawal (+) or addition (-) for other hydrocarbons and alcohol, for unfinished oils, motor gasoline blending components, and aviation gasoline blending components.
- Line (20) of Table 1: "Other Hydrocarbons and Alcohol New Supply" equals the field production of same in Table 2.
- Line (21) on Table 1: "Refinery Processing Gain" is a balancing item equal to total refinery production minus total refinery input in Table 2.
- Line (22) on Table 1: "Crude Used Directly" equals the sum of crude oil used directly as distillate and residual fuel oils in Table 2.
- Line (23) of Table 1: "Total Other Liquids" equals the sum of lines (18) through (22) of Table 1.
- Line (24) of Table 1: "Total Production of Products" equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or

addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil used as distillate and residual fuel oils in Table 2.

- Line (25) of Table 1: "Gross Imports of Refined Products" equals imports of LPG and ethane plus imports of finished petroleum products in Table 2.

- Line (26) of Table 1: "Exports of Refined Products" equals exports of LPG and ethane plus exports of finished petroleum products in Table 2.

- Line (27) of Table 1: "Net Imports of Refined Products" equals the difference between lines (25) and (26) of Table (1).

- Line (28) of Table 1: "Total New Supply of Products" equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil used as distillate and residual fuel oils; plus imports of LPG and ethane and finished petroleum products; minus exports of LPG and ethane and finished petroleum products in Table 2.

- Line (29) of Table 1: "Refined Products Stocks Withdrawal (+) or Addition (-) equals the sum of stock withdrawal (+) or addition (-) for LPG and ethane, and finished petroleum products in Table 2.

- Line (30) of Table 1: "Total Petroleum Products Supplied for Domestic Use" equals total products supplied in Table 2.

- Lines (31) through (37) of Table 1 equal the respective products supplied in Table 2.

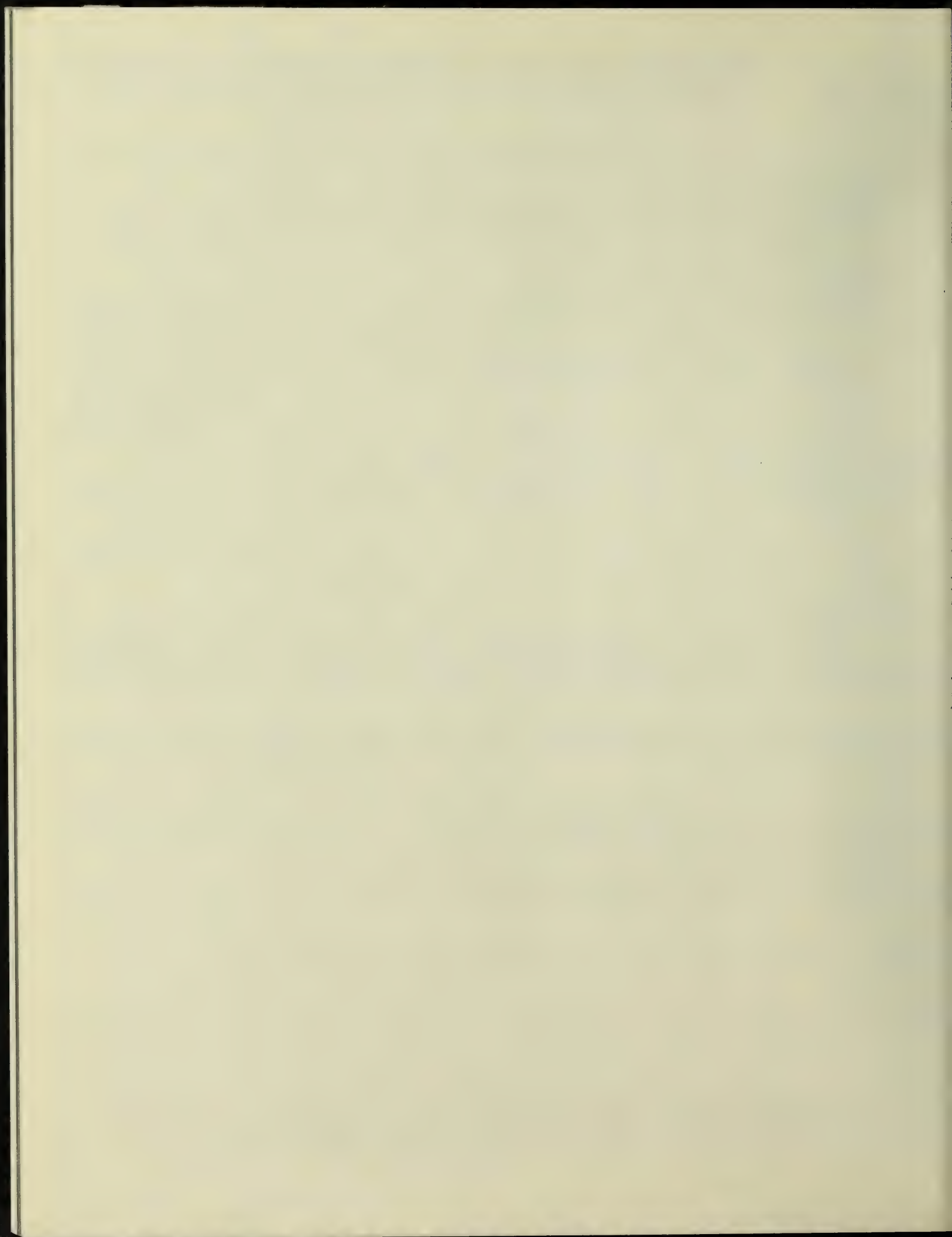
- Line (38) of Table 1: "Other Products Supplied" equals the sum of natural gasoline and isopentane, unfractionated stream, plant condensate, aviation gasoline, naphtha < 400 Deg. F for petrochemical feedstock uses, other oils > 400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, coke, asphalt, road oil, still gas, and miscellaneous products supplied in Table 2.

- Line (39) of Table 1: "Total Reclassified" is a balancing item equal to the sum of unfinished oils, motor gasoline blending components, and aviation gasoline blending components products supplied in Table 2.

- Line (40) of Table 1: "Total Product Supplied" is equal to total products supplied in Table 2.

- The sum of lines (41) and (42) of Table 1, stocks of "Crude Oil and Lease Condensate (Excluding SPR)" and stocks held by the "Strategic Petroleum Reserve," equals ending stocks of crude oil in Table 2. SPR stocks are reported on Form EIA-90.

- Line (46) of Table 1, stocks of "Refined Products," equals the sum of LPG and ethane and finished petroleum product stocks in Table 2.



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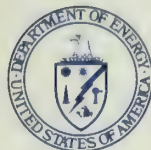
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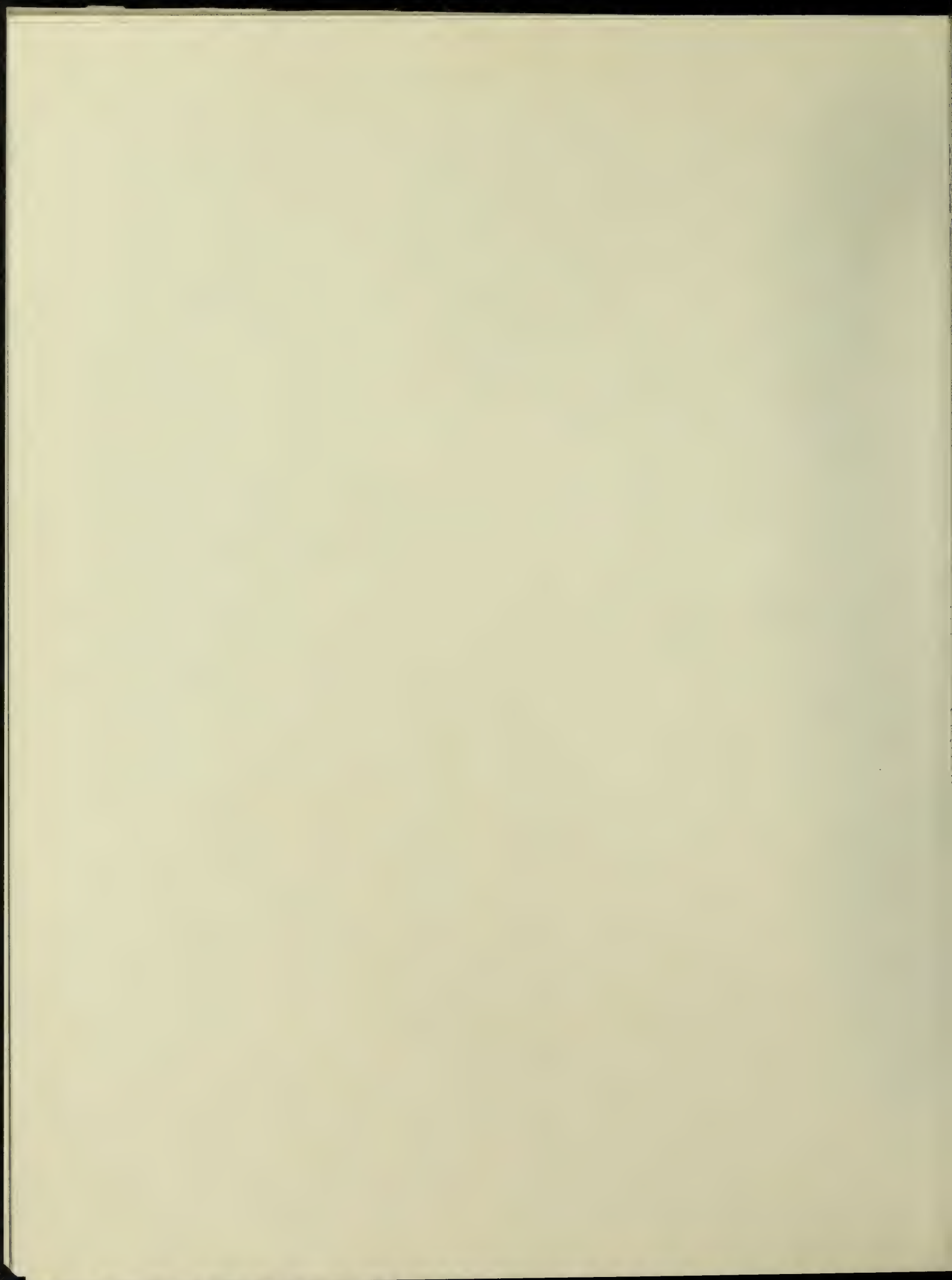
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April 1982

# Petroleum Supply Monthly



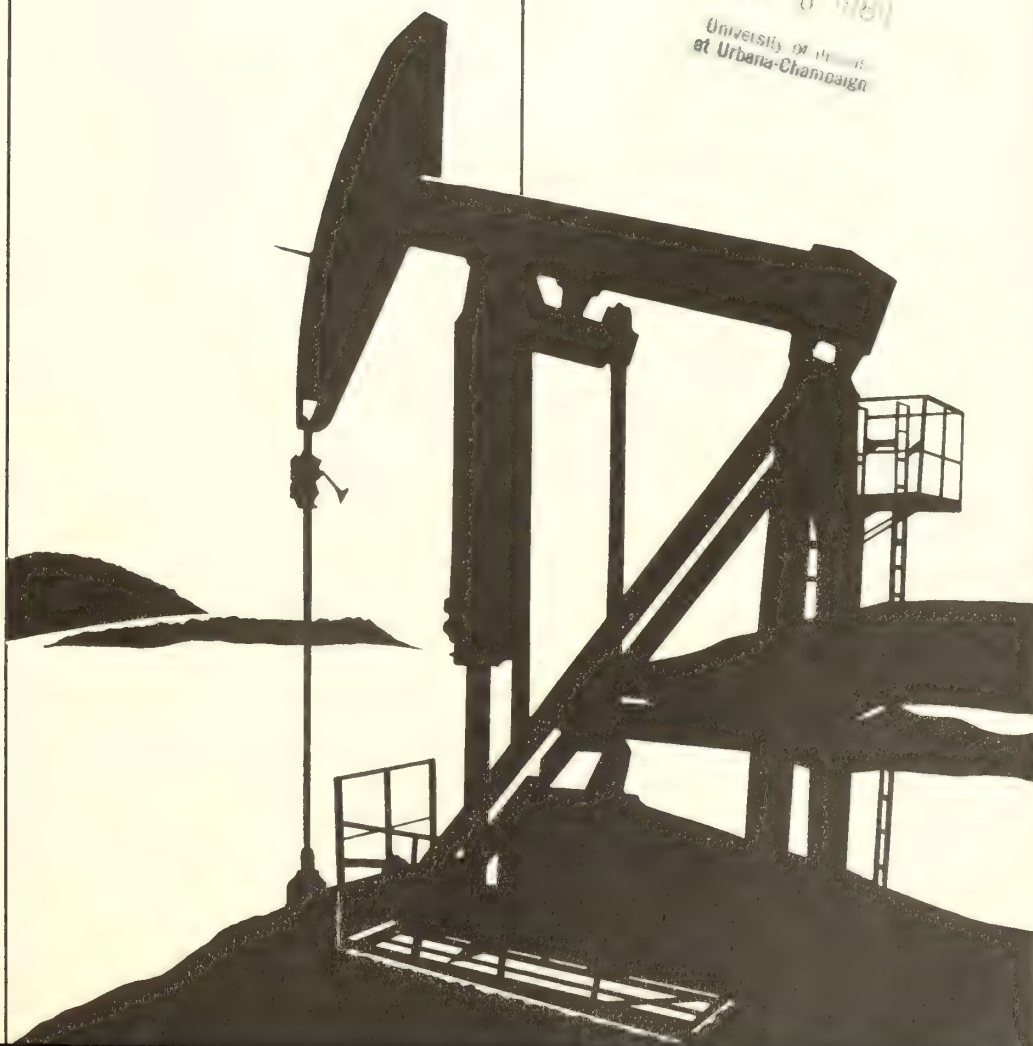


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## Introducing the Petroleum Supply Monthly

The **Petroleum Supply Monthly** (PSM) replaces four Energy Information Administration (EIA) monthly petroleum publications:

- *Monthly Petroleum Statistics Report* (MPSR)
- *Monthly Petroleum Statement* (MPS)
- *Supply, Disposition, and Stocks of All Oils by Petroleum Administration for Defense Districts and Imports into the United States, by Country* (PADD Report)
- *Availability of Heavy Fuel Oils by Sulfur Level* (Sulfur Report)

Care has been taken to insure that all the important information from the four consolidated publications is included in the PSM. The PSM displays these statistics in a comprehensive and cohesive manner, and provides readers with improved explanations of the data.

Articles designed to help readers understand and interpret petroleum statistics will highlight the PSM. These articles may focus upon a seasonal event such as the availability of motor gasoline for the summer driving season, or upon a trend such as the reduced utilization and shutdown of domestic refineries as consumption of petroleum products decreases.

The **Petroleum Supply Monthly** is designed to be convenient for both casual observation and serious analysis. For readers who want to know how the volume of petroleum products being supplied to the domestic market compares with previous trends, the "Summary Statistics" section lists monthly and annual data series and displays them graphically. For a more detailed view of the current situation, energy analysts can study petroleum supply and disposition statistics for a broad range of products in the Detailed Statistics section. As a special service, preliminary monthly statistics derived from EIA's weekly reporting systems are presented with the Summary Statistics.

The Explanatory Notes present objective information describing data collection, estimation, data quality, changes to data collected and interpretation of tables. Industry terminology and product definitions are listed alphabetically in the Glossary.

The following table is designed to guide readers of the four discontinued publications to the PSM tables most likely to have the same information.

MPSR	Tables 1, 2	PSM	Tables 1-5
MPSR	Table 3	PSM	Tables 15, 16
MPSR	Table 4	PSM	Table 14
MPSR	Table 5	PSM	Table 24
MPSR	Table 6	PSM	Table 21
MPSR	Table 7	PSM	Table 20
MPSR	Table 8	PSM	Table 22
MPS	Tables 1-3a	PSM	Tables 1-5
MPS	Tables 4-6	PSM	Tables 15-17
MPS	Table 7	PSM	Table 14
MPS	Table 8	PSM	Table 24
MPS	Tables 9-12	PSM	Tables 20-23
MPS	Table 13	PSM	Table 19
MPS	Table 14	PSM	Table 18
MPS	Tables 15, 16	PSM	Tables 26, 27
MPS	Tables 17-19	PSM	Tables 11-13
MPS	Tables 20-24	PSM	Tables 6-10
MPS	Table 25	PSM	Table 25
MPS	Table 26	PSM	Table 28
Sulfur Report	Tables 1, 2	PSM	Table 30
Sulfur Report	Table 3	PSM	Table 29
Sulfur Report	Table 4	PSM	N/A
Sulfur Report	Table 5	PSM	Table 31
Sulfur Report	Table 6	PSM	N/A
Sulfur Report	Table 7	PSM	Table 32
Sulfur Report	Tables 8-12	PSM	N/A

Sulfur Report	Table	13	PSM	Table	27
Sulfur Report	Table	14	PSM		N/A
PADD Report	Table	1	PSM	Tables	6-10, 25-28
PADD Report	Tables	2,3	PSM	Tables	6-10, 25-28
PADD Report	Table	4	PSM	Table	17
PADD Report	Table	5	PSM	Table	21
PADD Report	Table	6	PSM		N/A

The PADD Report was not published during 1981 as a separate publication. Beginning with the June 1981 issue of the MPS the following tables were added to replace the PADD Report.

PADD Report	Table	1	MPS	Tables	15-16, 20-26
PADD Report	Tables	2,3	MPS	Tables	15-16, 20-26
PADD Report	Table	4	MPS	Table	6
PADD Report	Table	5	MPS	Table	10
PADD Report	Table	6	MPS		N/A

The **Petroleum Supply Monthly** (PSM) is prepared by the Petroleum Supply Division, Office of Oil and Gas, Energy Information Administration, Department of Energy.

# Petroleum Focus



## Petroleum Focus

# Timeliness and Accuracy of Selected Monthly Petroleum Supply Data

### Introduction

The Petroleum Supply Division of the Office of Oil and Gas in the Energy Information Administration (EIA) collects and publishes statistics regarding the supply and movement of petroleum in the United States. These data are currently published in the *Weekly Petroleum Status Report*, the *Petroleum Supply Monthly* (PSM) and the *Petroleum Supply Annual* (PSA). This article will discuss the accuracy of monthly petroleum supply data, and the relationship of accuracy to the timing of its publication.

### The Petroleum Industry and EIA Monthly Data

The petroleum industry is complex. The monthly petroleum reporting system in EIA is designed to monitor the petroleum industry by measuring supply and throughput at various points in the flow from the production of crude oil to the distribution of petroleum products. The explanatory notes in this issue describe the relationship of the data collected on EIA survey forms to the petroleum industry. This relationship is summarized in Exhibit 1.

The monthly supply data derive primarily from three EIA surveys, the Joint Petroleum

Reporting System (JPRS) (EIA-87, 88, 89, and 90), the Report of Oil Imports (ERA-60), and the Natural Gas Liquids Operations Report (EIA-64) (which will be discussed in a later article). These surveys are described in Explanatory Notes 1.1, 1.2, and 1.5 of this issue. The JPRS and ERA-60 surveys collect petroleum data from all of the companies identified as refiners, mechanical blenders, bulk terminal operators with a capacity of 50,000 barrels or more, product pipeline operators, holders of crude stocks having possession of 1,000 barrels or more, and petroleum importers of record.

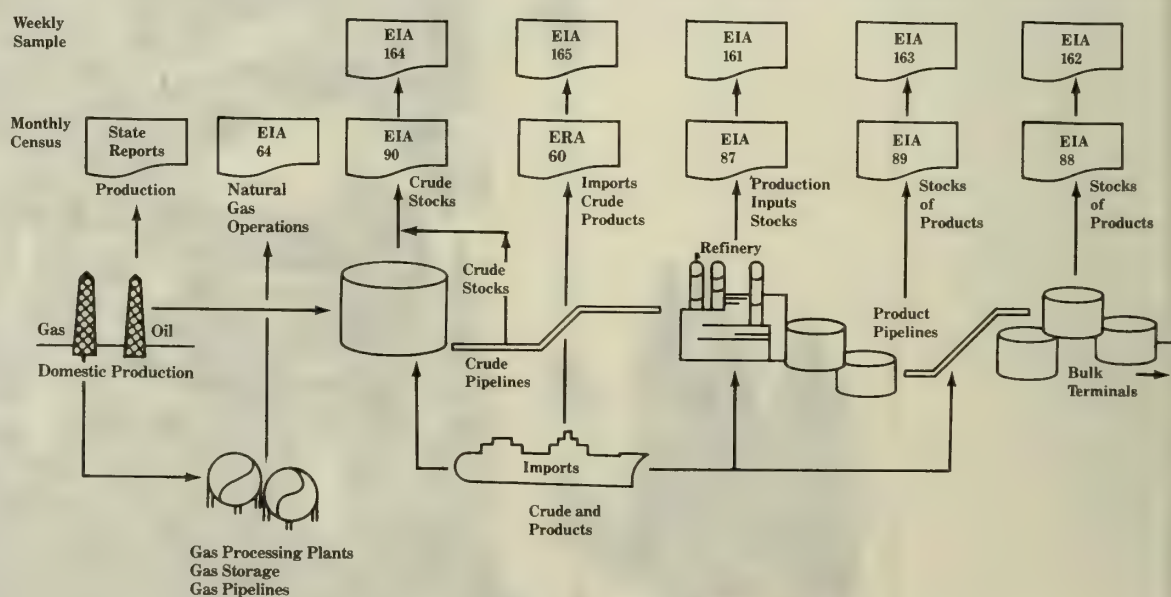
### Sources of Error

As in any survey, the fundamental accuracy of published data depends on two components: survey design and data accuracy.

Survey design has three elements, only two of which pertain to EIA's monthly surveys. The three elements are:

- 1) The frame—a list of the names of all companies that have been identified as making up the industry to be monitored.
- 2) The survey forms and definitions—the forms filled out by the companies to provide the data to describe the industry.

### Exhibit 1 Petroleum Data Systems Operated by EIA



- 3) The sample—the list of those companies in the frame which were selected to be surveyed.

The third element, the sample, does not pertain to EIA monthly data, since the survey forms are filed by all companies on the frame.

Data accuracy is the extent of the agreement between the data which are published and the data which would be published if all companies scheduled to report reported on time with no errors and if no errors were made in entering and totaling company submissions. Data accuracy is diminished by three types of problems: non-response by companies, errors in submitted data, and errors in data entry.

These five sources of error in EIA's monthly surveys (frames, survey forms and definitions, non-response, submission errors, and data entry errors) are described in more detail below.

### **Frames**

The list of names of companies which were identified as comprising the industry may not be complete. This is referred to as a "frame" problem. The list may be incomplete because of the omission of certain facilities of a type on the list (for example, the list includes refineries, but a specific new refiner may not be on the list) or because of failure to identify a type of facility which should be on the list (for example, blenders of motor gasoline were added to the frame of the JPRS in January 1981). In the JPRS and the Report of Oil Imports, the list of respondents is continually reviewed and updated in order to minimize this problem. However births and deaths among companies in the petroleum industry are difficult to track in a timely manner. The article, "Focus on Motor Gasoline," in this issue describes the frame problem associated with the blenders of motor gasoline.

### **Survey Form and Definitions**

The survey form and definitions elicit the data describing industry operations. It is possible that the data requested do not adequately describe some aspect of the industry, or that the definitions of terms and instructions for filling out survey forms are misleading. When this occurs, data submitted are not exactly what the survey was intended to collect. A problem of this type for motor gasoline production is also illustrated in the article on motor gasoline.

### **Non-Response**

Companies occasionally do not submit their reports in time to be included in published statistics. This is known as a "non-response"

problem, and, if not accounted for, results in underestimated totals. Hence, a method of estimating the quantity associated with the non-respondents (imputation) must be used. Although imputation reduces error, it cannot eliminate error because factual information is missing and the value used is only an estimate. The JPRS surveys use a non-respondent's data from the previous month to impute values for the present month. The report of oil imports has no imputation procedure, as will be discussed in the section "Conclusions from the Assessment Paper 1977-1979."

### **Errors in Submitted Data**

Occasionally there are mistakes in the data submitted by the companies. There are two reasons for company submission errors. The first is that companies sometimes must submit their forms to EIA before their final records are available. If the final values are different, they must also file revisions at a later date when their records are final. This is one major source of the revisions to EIA published statistics.

The second reason for submission errors is simply human error which occurs when figures are written on forms by reporters. Often these mistakes can be detected and resolved by editing procedures, which are discussed in the following section.

### **Errors in Data Entry**

Human errors may also occur when the data on the form are keypunched into computer files. If clerical errors are large, they can be identified and corrected by automated edit procedures. Some edit procedures check whether the current data are consistent with past data. Other edits check whether the current data are internally consistent (for example, to see if the totals are equal to the sum of the parts). Clerical errors that are small in magnitude cannot always be detected. For these errors, it is necessary to assume that their overall effect on published totals is small.

### **Timing of the Monthly Surveys**

For a calendar month (a report month), companies are required to submit the ERA-60 form summarizing petroleum imports within 15 days of the end of the month, and the JPRS forms summarizing petroleum inputs, production, and stocks within 20 days of the end of the month. Because the JPRS and oil imports data are intended to be based on actual company records, companies are required to submit revisions if they identify errors on their original submissions.

## Timing of the Monthly Publications

Prior to March 1982, data for the JPRS and Oil Imports System were scheduled to be published first in the *Monthly Petroleum Statistics Report* (MPSR), 60 days after the end of the report month. The second publication of the data was scheduled to occur in the *Monthly Petroleum Statement* (MPS) approximately 90 days following the end of the report month. The final publication of the data was scheduled for 9 months after the end of the calendar year in the *Annual Petroleum Statement* (APS). The data from the monthly surveys published in the MPSR, the MPS, and APS are "snapshots" of the same data base at different points in time. The revisions to the totals published at successive times were due to company resubmissions and corrections, collection of data from companies which had been non-respondents at the last publication, and correction of data processing errors. The data published in the APS were considered to be final values. No further revisions or resubmissions were accepted.

Beginning in March 1982 the MPSR and MPS were consolidated into this publication, the *Petroleum Supply Monthly* (PSM). The PSM will be published 60 days after the end of a report month. Hence, the timing of the publication of the data from the monthly surveys will be the same as it was in the MPSR. However, the PSM also includes more current data based on reports to the Weekly Petroleum Reporting System. The PSM is intended to provide more comprehensive statistics than the MPSR in a more timely fashion than the MPS.

## An Assessment of Accuracy 1977-1980

In June 1981, EIA's Office of Energy Information Validation published "An Assessment of the Accuracy of Principal Data Series for the EIA."\* It examined EIA data series for petroleum, natural gas, and coal. For petroleum supply data, it presented two types of analysis based on final APS data from 1977 through 1979. The first was a comparison of EIA data with data from other sources. The second was a study of the change in accuracy of the data for a month as it moved from preliminary to final (i.e. from MPSR to MPS to APS.) The assessment paper is described in more detail in Explanatory Note 3 of this issue.

\*DOE/EIA-0292, June 1981. This document may be obtained from: National Energy Information Center EI-20, Forrestal Building, US Department of Energy, Washington, D.C. 20585

## A Comparison with Data From External Sources

The comparison of EIA data with data from other sources is especially useful in identifying survey design problems (frame and survey form/definitional problems). There are two petroleum supply data series for which there are independent data sources based on a census: imports and motor gasoline.

The Bureau of Census compiles the imports records of the U. S. Customs Service. The 1981 assessment paper indicated that annual data from the Report on Oil Imports and the Bureau of Census compare quite favorably.

Motor gasoline product supplied is a series derived by EIA. It is equal to net gasoline production plus net gasoline imports plus net gasoline stock withdrawals. A comparable series is sales of motor gasoline as derived by the Federal Highway Administration (FHWA) from reports collected by the 50 States for tax purposes. The EIA data were shown to be consistently lower than the FHWA data. In addition, the difference was becoming larger with time. As discussed in the "Focus on Motor Gasoline" (which follows this article), the EIA values were low partially because the industry shifted to producing motor gasoline at blending stations (a frame problem), and partially because there was a subtle problem in the definition of production used in EIA survey forms (a definitional problem). Beginning in January 1981, in an effort to resolve these problems, revised monthly refinery forms (EIA-87) were sent to an expanded mailing list that included blenders. Individual blenders have been added as they have been identified since January 1981.

## Accuracy as a Function of Time Since Report Month

The second study documented in the assessment paper was a comparison of the change in accuracy of data for a given report month as the data moved from preliminary publication (MPSR) to final publication (APS). This type of comparison identifies the magnitude of data accuracy problems: problems due to non-response, resubmissions, and clerical errors.

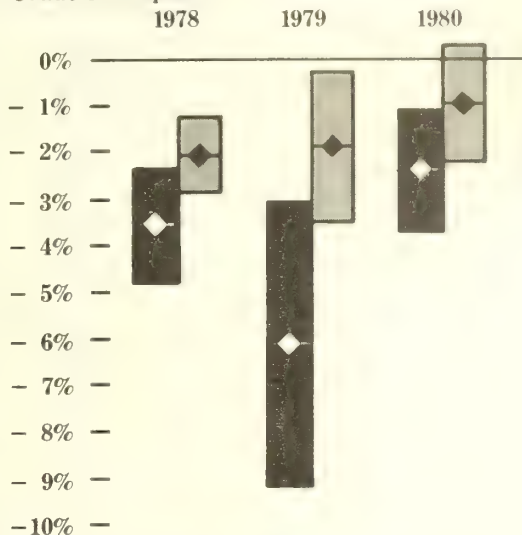
The 1981 assessment paper indicated that, as expected, estimates prepared soon after the reporting period are less accurate than those prepared at a later time. Early estimates are more subject to such problems as non-response, respondent errors, and processing mistakes.

Exhibit 2 summarizes this change in accuracy for imports. Exhibit 3 summarizes the change for crude production, and Exhibit 4 summarizes

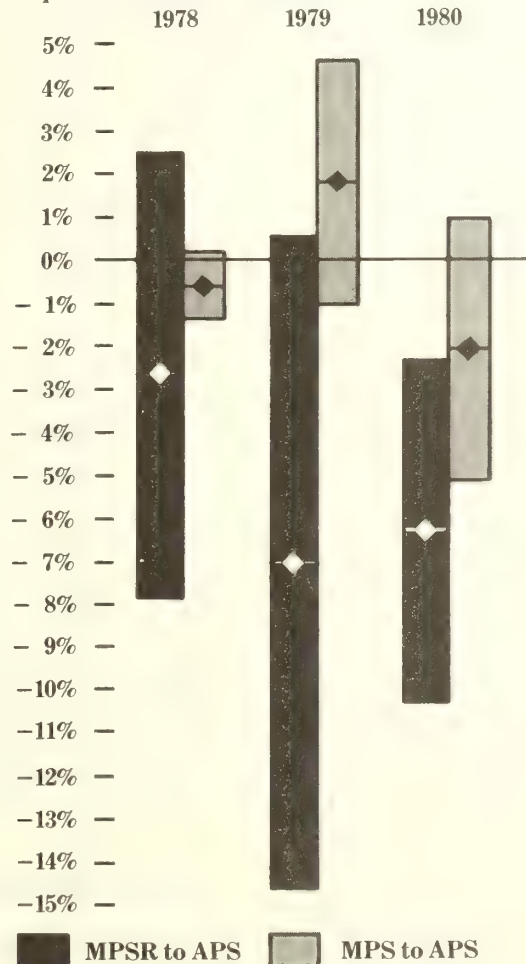
## Exhibit 2 Revisions from Preliminary to Final Published Values for Imports

Percent Difference MPSR (MPS) to APS  
(Bars are Mean  $\pm$  One Standard Deviation)

### Crude Oil Imports



### Imports of Refined Products\*



\*Including Unfinished Oils and Lease  
Condensate

the change for 8 major JPRS data series: crude inputs, production of motor gasoline, production of distillate fuel oil, production of residual fuel oil, stocks of crude oil, stocks of motor gasoline, stocks of distillate fuel oil and stocks of residual fuel oil. The figures illustrate the revisions from the MPSR to the APS as a percent of the APS value, and from the MPS to the APS as a percent of the APS value.

### Description of Statistics

The bars shown in Exhibits 2, 3, and 4 are based on 2 statistics, the mean and the standard deviation of percent differences between preliminary and final monthly data. The percent difference for a month is the difference between the preliminary value and the final value multiplied by 100 and divided by the final value. The mean is the average of the percent differences for the year. The standard deviation is the square root of the sum of the squared percent differences for the year divided by 11. The end points of the bars are equal to the mean plus and minus one standard deviation.

The bars are defined two ways. The first uses preliminary values from the MPSR and final values from the APS. The second uses preliminary values from the MPS and final values from the APS.

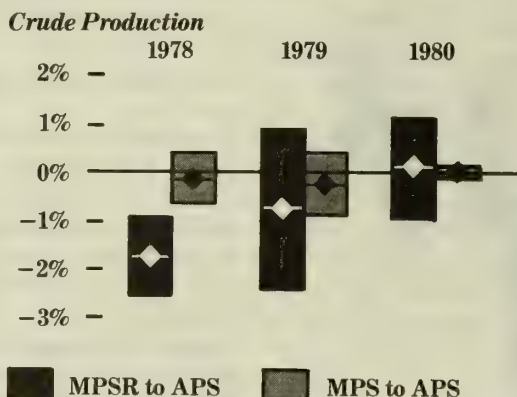
The exhibits show the bars for MPSR and MPS for 3 years: 1978, 1979, and 1980. They illustrate the improvement in accuracy from the MPSR to the MPS (due to receipt of data from nonrespondents to the MPSR, resubmissions and data corrections). They also illustrate whether or not preliminary data are biased (bars appear to be centered well above or below the 0-percent line). Bias indicates a systematic difference between the preliminary and final data series (i.e., one series is consistently higher or lower than the other). Causes for systematic differences can usually be identified and corrected. The length of a bar illustrates the magnitude of revisions. For an average of 8 months of the year, the revision between the preliminary and the final value was within the given bar.

### Conclusions from the Assessment Paper 1977-1979

The assessment paper concluded that the only apparent systematic errors occurring in 1977-1979 were for imports and crude oil production, where preliminary estimates were always low. For imports this problem was due to two factors: (1) many resubmissions and revisions are filed by the companies after initial publication; and (2) no imputation procedure is yet in place to estimate values for companies which are non-respondents at the time of publication. Exhibit 2 illustrates the magnitude of the

### Exhibit 3 Revisions from Preliminary to Final Published Values for Crude Oil Production

Percent Difference MPSR (MPS) to APS  
(Bars are Mean  $\pm$  One Standard Deviation)



revisions to crude imports and imports of products in 1978, 1979, and 1980. MPSR data tend to be low relative to the APS value (the bars are centered around negative values), and the magnitudes of the revisions are large (bars are long). Even the MPS data tend to be low relative to the APS value with large revisions.

Final company records for imports are available later than final company records for refinery operations and stocks. This is due to the fact that imports records are not really final until customs importation forms have been returned by the U.S. Customs Service. This is the major reason for the magnitude of the revisions for imports.

There is no effective imputation procedure because the amount imported by smaller companies (the most frequent non-respondents) in any given month is likely to be zero, since they may receive only a few shipments a year. Thus, if a smaller company fails to submit a report on time, the best guess for the quantity it imported is zero. For this reason, non-respondents are assumed to have no imports. However, the aggregate of all non-respondents might be expected to contribute a quantity greater than zero. Thus, the lack of a procedure to estimate the imports of the aggregate of the non-respondents contributes to the understatement of imports by preliminary data. A method of imputing for the aggregate of the non-respondents is currently under development.

The second problem identified in the assessment paper was that MPSR crude oil production estimates were systematically about 1 percent low in 1977, 1978, and 1979. MPSR estimates at that time were based on the Domestic Crude Oil

First Purchase System. The revised estimates in the MPS were based on the preliminary State data from the Crude Oil Production System (COPS). Final values in the APS were based on the finalized State data from COPS.

Exhibit 3 shows the change in accuracy from MPSR to MPS to APS for crude oil production in 1978, 1979, and 1980. Beginning in mid 1979, preliminary crude oil production estimates in the MPSR were based on a statistical procedure using aggregated historical data from a geographical region to project the data for the current month. Beginning in January 1980, this procedure was revised and improved. As shown in Exhibit 3, this procedure has resulted in better preliminary estimates in 1980 (revisions are no longer systematically low). The crude oil production data and estimates are discussed further in the article, "Focus on Crude Oil Production," in this issue.

#### *Accuracy of JPRS Data Series 1978-1980*

Exhibit 4 shows that in 1980 the MPSR and MPS values were quite accurate relative to the APS for crude stocks, crude inputs, motor gasoline production and stocks, and distillate and residual fuel oil stocks. Distillate and residual fuel oil production estimates published in the MPSR were 3 percent higher than the APS in 1980. This was not the case in 1978 or 1979. This systematic error was corrected by the time the MPS was published. The MPS values for distillate and residual production were quite accurate.

#### *A Comparison of MPSR and MPS in 1981*

The previous sections compared MPSR values to APS values and MPS values to APS values. This section compares MPSR values to MPS values for 1981 because final data are not yet available. The previous sections indicated that most of the revisions to monthly data occurred by the time the MPS was published. Data for 1981 show few revisions between the MPSR and the MPS. The only exception is crude oil imports for which the MPSR value is systematically about one percent lower than the MPS value. This is a slight improvement over previous years. In 1978 the MPSR crude oil imports were 1.5 percent lower than the MPS, in 1979 they were 4 percent lower, and in 1980 they were 1.5 percent lower.

### Summary and Conclusions

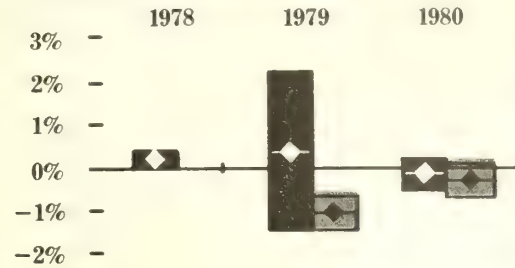
This article has described the historical accuracy of EIA's monthly petroleum supply data, including an indication of the change in accuracy from MPSR to MPS to APS. In general,

**Exhibit 4.**  
**Revisions from Preliminary Published Values to Final Published Values**  
**for Major JPRS Data Series**

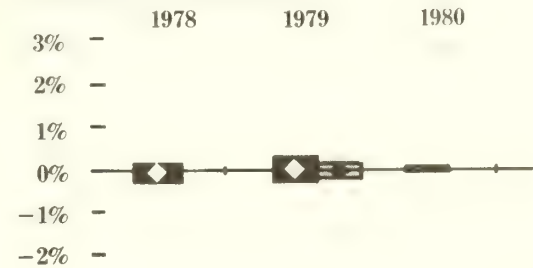
Percent Difference MPSR (MPS) to APS  
 (Bars are Mean  $\pm$  One Standard Deviation)

**Inputs and Production**

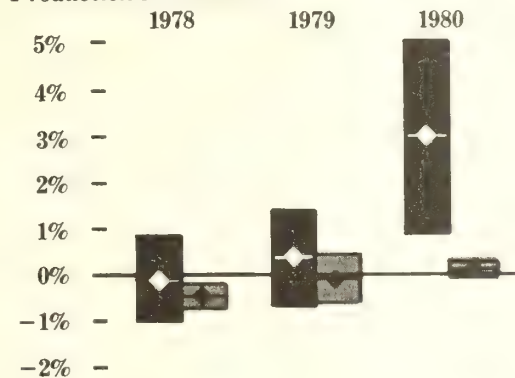
**Crude Oil Inputs to Refineries**



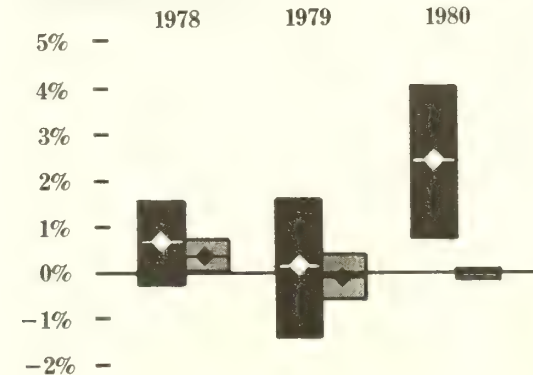
**Production of Motor Gasoline**



**Production of Distillate**

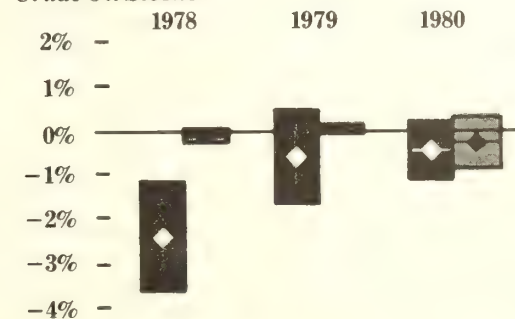


**Production of Residual**

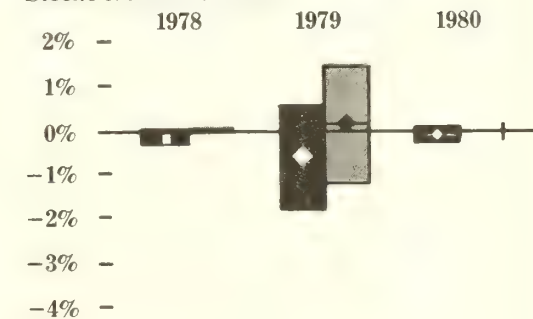


**Stocks**

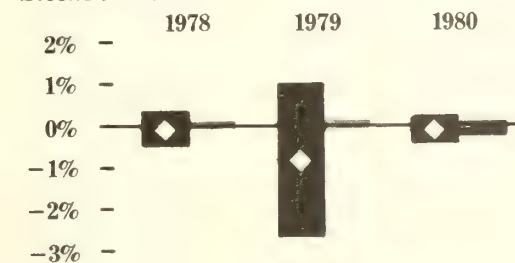
**Crude Oil Stocks**



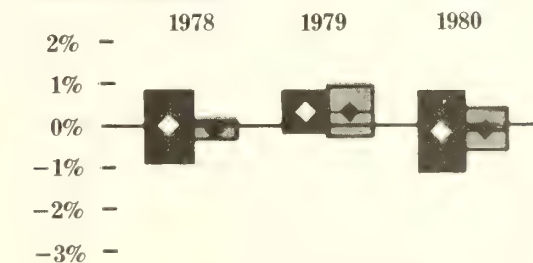
**Stocks of Motor Gasoline**



**Stocks of Distillate**



**Stocks of Residual**



■ MPSR to APS

■ MPS to APS

the data are of good quality, with the delayed data (MPS) more accurate than the more timely data (MPSR) as based on the APS as the standard.

The special articles on motor gasoline and

crude oil production that follow this article illustrate the efforts underway in EIA to identify, evaluate and correct problems in EIA petroleum supply data. These efforts are expected to result in improved accuracy for PSM data during 1982.

## Focus on Motor Gasoline Statistics

Both the Energy Information Administration (EIA) and the Federal Highway Administration (FHWA) develop estimates for gasoline consumption. EIA computes "product supplied" of gasoline as the sum of net production, net imports, and net stock drawdown. The FHWA on the other hand, sums sales figures from gasoline taxation receipts from individual States.

Prior to 1979, the EIA product supplied series for motor gasoline was consistently 2 percent lower than the FHWA sales data series. This difference increased to 4 percent in 1979 and 5 percent in 1980. In response to this growing discrepancy, EIA initiated an analysis of the causes.

Two detailed validation studies were begun in 1980, the first aimed at validating the EIA treatment of major products such as gasoline, and the second aimed at evaluating the State gasoline tax data collected by the FHWA.<sup>1</sup> The FHWA data was of special interest because it served as the basis of proposed gasoline allocation systems.

As a result of the studies, two primary causes for the growing differences were identified. First, refinery operations, particularly the flows of unfinished oils and the use of some finished products as input to produce other finished products, were not being accurately described on the EIA survey forms.

Prior to January 1981, motor gasoline product supplied was based on reported production of motor gasoline (the sum of leaded, unleaded, gasohol, and blending components). Since January 1981, motor gasoline product supplied is based on net production (reported gasoline production minus reported transfers for other uses) for finished motor gasoline (the sum of leaded, unleaded, and gasohol). A special survey conducted in the last 6 months of 1980 showed that the new definition resulted in an increase of 2% in motor gasoline product supplied. This was due to the fact that refinery additions or receipts of blending components which were

blended into finished motor gasoline were often not included in the total production of motor gasoline in the old system. These blending components were produced as other products such as butane or petrochemical feedstocks, then reclassified as motor gasoline. Thus the pool of finished plus unfinished gasoline never added to the net production of finished gasoline as had been assumed in the design of the original survey form. This is a plausible explanation for the consistent 2 percent difference between the EIA and FHWA series. In 1981 EIA's refinery survey form, EIA-87 was revised to permit better tracking of individual components through the refinery.<sup>2</sup>

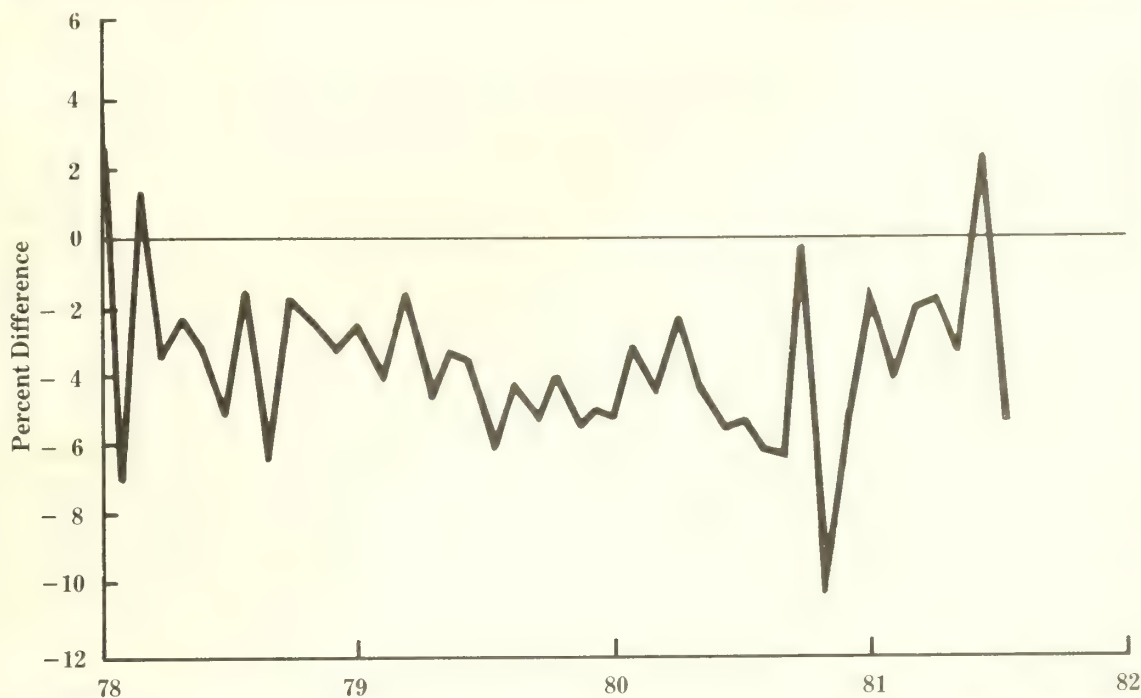
The second problem identified was that a large amount of gasoline was being produced in downstream blending facilities, which were not included in the survey frame (the list of respondents). It is thought that this activity began in order to take advantage of provisions in the Environmental Protection Agency (EPA) regulations that permitted blenders and small refiners to add five times as much lead as large refiners. Adding tetra ethyl lead to readily available naphthas and butanes is a relatively inexpensive way of raising the octane, thus manufacturing regular leaded motor gasoline. In the legislated transition to unleaded gasoline, medium and large refiners had to use more expensive products to achieve the same octane boost. Since there is effectively no restriction on market entry, blender operations have flourished, producing principally finished leaded gasoline.

Once the problem was discovered, the individual "blenders" were identified by examining aggregate EPA listings and were added to the frame of EIA surveys in January 1981. In a special

<sup>1</sup>Office of Statistical Standards, Energy Information Administration, U.S. Department of Energy, "Error Profile of the Motor Fuel Taxation Data Used to Establish and Monitor State Emergency Conservation Targets", Washington, D.C., July 1981, DOE/TIC-115001-1.

<sup>2</sup>See Explanatory Note 4 of this issue.

## Motor Gasoline Percent Difference EIA to FHWA 1978-1981



survey in late 1980, they were identified as producing an additional 2 to 3 percent of the total production, about half of the missing gasoline volume. Additional blenders have been added since that time. One was added in July 1981, four in October, four in November and nine in January 1982.

The validation study of the FHWA series identified a number of significant differences in the taxation information submitted by each State. For example: (1) some States include aviation gasoline, diesel fuel, and LPG's in their definition of motor gasoline; (2) States are likely to double count interstate trade; (3) individual States may or may not count military and other non-taxed users; and (4) individual States have specific exemptions for State produced natural gasoline, a product principally of natural gas wells.

Recent studies show that the correction of the EIA survey forms and frames in 1981 has not completely made up the difference between the EIA data and the FHWA data. There are

several possible reasons for the continuing difference:

- The FHWA and EIA collect slightly different data. Most significantly, FHWA includes some aviation gasoline and possibly double counts interstate sales.
- In a free market environment alternative ways of producing gasoline will always exist. Examples include: (1) gasohol blending using ethyl alcohol; (2) leaded gasoline blending using gas liquids; and (3) synthetic fuel processes using coal or natural gas. The producers of these alternative sources of gasoline are typically not included immediately in the list of respondents to EIA forms.
- The limitations imposed by sensitivity to reporting burden and the economics of survey operations imply that some threshold will always exist below which small gasoline production facilities operate without being identified for inclusion in the survey frames. In the aggregate these small facilities may become significant.

## Focus on Crude Oil Production Data

The Crude Oil Production System (COPS) has provided annual State level crude oil production data for publication in the *Annual Petroleum Statement* (APS) and will provide that data for publication in the new *Petroleum Supply Annual* (PSA). In addition, it provides monthly data on State level crude oil production. These data originate in the individual State offices which voluntarily share their data with the Energy Information Administration (EIA). Monthly data for publication in the former monthly publication, the *Monthly Petroleum Statement* (MPS), and the current monthly publication, the *Petroleum Supply Monthly* (PSM), are derived from the COPS and augmented by estimates for the States that do not provide monthly data through COPS. Prior to October 1981, Petroleum Administration for Defense District (PADD) level and US level totals were calculated by accumulating the State reports.

Each State has a crude oil reporting system. Typically, these reporting systems were designed by States to provide data necessary either for collection of taxes or for monitoring conservation of natural resources. Because of the resultant differences in the design of the individual State's reporting systems, the data they provide to EIA differ in accuracy, timeliness, and meaning.

Production figures are submitted to appropriate state offices either by the well operator or by the firm which purchases the liquids and moves them away from the lease. In some jurisdictions, such as Texas, reports are submitted by both.

Typically, State regulations specify a period of 15 to 45 days from the end of a month within which production reports must be filed with the State office. The State office must process these reports, summarize results and prepare a crude oil production figure for use by DOE. In some cases, these State reports are not ready in time for the monthly publication schedule. If reports are not received from the State in time, the State office is contacted by telephone. If data are not available, EIA estimates crude production based on that state's past data. There are seven states that do not collect data on a monthly basis: New York, Pennsylvania, West Virginia, Indiana, Missouri, Ohio, and Wyoming. Their monthly production is estimated by multiplying an estimate for their average daily production by the number of days in the month.

When final annual data have been prepared by the States, they are forwarded to EIA. These

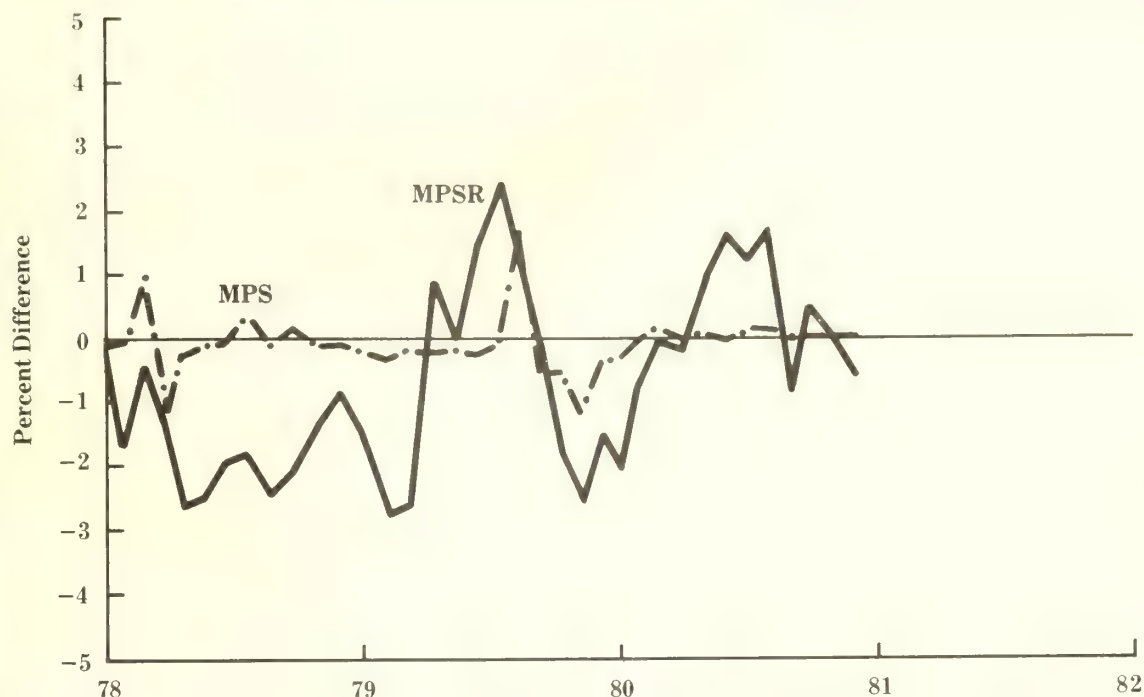
are the annual totals published by State in the PSA (formerly the APS). Some States also provide final estimates for their monthly crude production. If a State does not provide final estimates of monthly production, the State's preliminary monthly data are adjusted so that their sum is equal to the State's revised annual total. For the seven States that do not provide monthly data, the final monthly estimates are made by multiplying the average daily production for the year by the number of days in the month. These are the final monthly data published in the PSA (formerly the APS).

Since data from the COPS were not available in time for publication in the *Monthly Petroleum Statistics Report* (MPSR), which was published 60 days after the end of a report month, an alternative source for preliminary crude oil production estimates was needed. Prior to June 1979, these preliminary estimates were derived from the Domestic Crude Oil First Purchaser System, Form FEA P-124, which was operated by the Economic Regulatory Administration.

Any firm that obtained ownership by first purchase of 150,000 barrels per month or more of domestic crude was required to file a report by 20 days after the end of a month. The summary U.S. level data were reasonably complete by 60 days after the close of the month. The State level data were reasonably complete by 90 days after the close of the month. These data, which were used to estimate U.S. crude production for publication in the MPSR in 1977, 1978, and the first half of 1979, were always lower than the final COPS data. The following reasons contributed to this bias:

- (1) By 45 days after the end of the month, when estimates were needed for the MPSR, many companies had not yet filed their reports. The Domestic Crude Oil First Purchaser System had no way of estimating the contribution of the non-respondents.
- (2) Companies that were first purchasers of quantities of less than 150,000 barrels were exempt from reporting.
- (3) Crude oil used on lease by the producer or the first purchaser was not reported.
- (4) Reports to the Domestic Crude Oil First Purchaser System were based on accounting records of the companies. Procedures used by some companies to update their records occasionally resulted in reports of negative purchases for a month.

## Crude Production Percent Difference to Annual Value 1978-1980



In September 1979, the Domestic Crude Oil First Purchaser System was redesigned and relabeled Form ERA-182. At that time, several of the above problems were addressed: All first purchasers were required to report, and they were required to report crude that they had used on lease. While these adjustments brought the data closer to the COPS data, they did not eliminate the bias.

Because of these problems with the First Purchaser System, an alternative statistical estimation procedure based on historical COPS data was proposed and implemented in June 1979. It was revised in January 1980 and again in October 1981.

The revised estimates are based on historical COPS data.<sup>1</sup> The model for a geographic region expresses current production for that region as a linear function of its past production. These models lead to an estimate for crude production for the desired month of publication. At the time these estimates are made, the most current available data are from 3 months prior to the publication date.

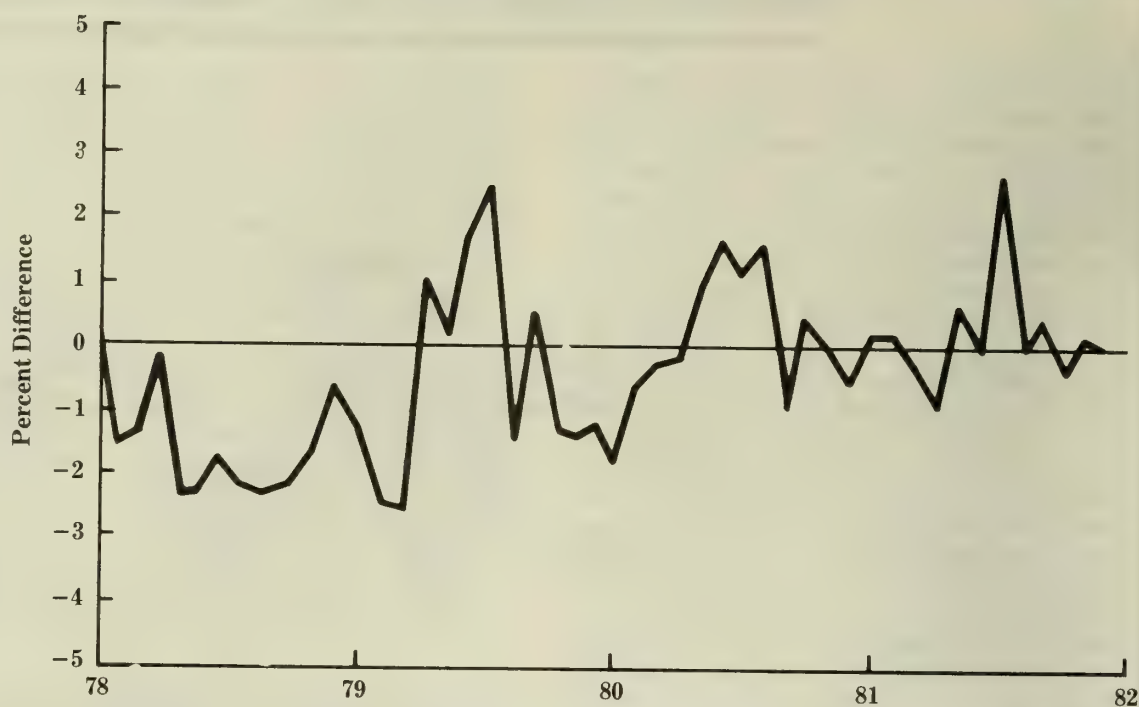
Beginning in June 1979, MPSR estimates for crude production were based on models for production in geographic regions. From June through December 1979, these estimates were

based on two models: one for crude production in the contiguous 48 States; the other for the crude production in Alaska. However, these estimates were still biased. In January 1980, the estimates were improved by obtaining data on crude production in the north slope of Alaska directly and by developing models for crude production in 5 regions: the rest of Alaska, California, Texas, Louisiana, and the rest of the United States. This procedure has led to better behaved estimates for crude production.

The first graph shows the percent error per month for 1978, 1979, and 1980 of MPSR data relative to APS data and of MPS data relative to APS data. The differences between MPS and APS are due to annual revisions submitted by States on COPS. The difference between MPSR and APS prior to June 1979 are due to differences between data from the Domestic Crude Oil First Purchaser System and annual COPS data. After June 1979 these differences are due to differences between model estimates and COPS data. The graph shows that the data since January 1980 are no longer biased. (The revisions are centered around zero.) The second graph shows the percent difference per month of MPSR data relative to the MPS data for 1978, 1979, 1980, and 1981. This shows that in 1981, models continued to give acceptable results.

<sup>1</sup>See Explanatory Note 2.2 in this publication.

### Crude Production Percent Difference MPSR to MPS 1978-1981

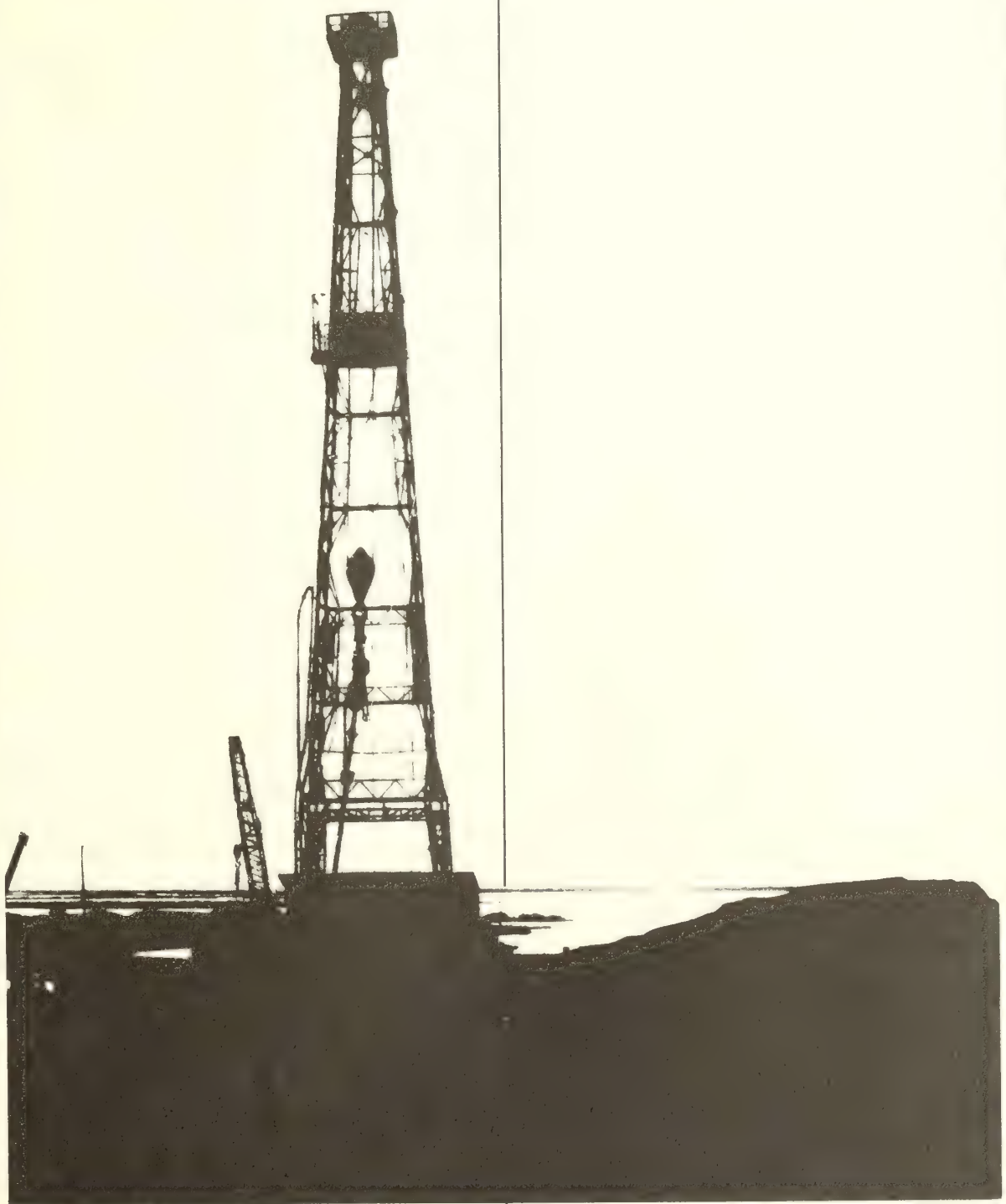


As part of the transition from the MPS to the PSM, the production cycle of the MPS was reduced to less than 90 days in late 1981. Because data on crude production were needed sooner with this revised schedule, there were more States for which data were not available from COPS by the MPS (PSM) publication date. This caused a problem in preparing estimates for PAD District and U.S. totals.

Because of the previous success in modeling the crude production in geographic regions and the ease in extending the modeling approach, this

problem was solved by replacing the model for the rest of the United States with separate models for PAD Districts. New models were developed for PADD I, PADD II, the States in PADD III other than Texas and Louisiana, PADD IV, and the States in PADD V other than California and Alaska. Since October 1981, MPS (PSM) estimates for crude production in PAD Districts and the United States have been given by summing the estimates for the appropriate models. Alaskan north slope production continues to be obtained directly by telephone.

## Summary Statistics



# Crude Oil<sup>1</sup> and Petroleum Products Overview

		Field Production			Stock Withdrawal <sup>2</sup>			Ending Stocks <sup>3</sup>
		Total Domestic <sup>4</sup>	Crude Oil	Natural Gas Plant Production	Crude Oil <sup>5</sup>	Petroleum Products	Petroleum Products Supplied	Crude Oil <sup>5</sup> and Petroleum Products
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	10,975	9,208	1,738	11	-146	17,308	1,008
1974	AVERAGE	10,498	8,774	1,688	-62	-117	16,653	1,074
1975	AVERAGE	10,045	8,375	1,633	-17	-145	16,322	1,133
1976	AVERAGE	9,774	8,132	1,603	-39	96	17,461	1,112
1977	AVERAGE	9,913	8,245	1,618	-170	-378	18,431	1,312
1978	AVERAGE	10,328	8,707	1,567	-78	172	18,847	1,278
1979	AVERAGE	10,179	8,552	1,584	-148	-25	18,513	1,341
1980	January	10,377	8,675	1,648	-594	270	18,851	1,351
	February	10,402	8,705	1,656	-292	563	18,817	1,343
	March	10,303	8,698	1,568	-47	-99	17,377	1,348
	April	10,356	8,685	1,630	-412	-229	16,784	1,367
	May	10,298	8,635	1,615	-117	-520	16,238	1,387
	June	10,164	8,554	1,561	65	-869	16,187	1,411
	July	10,113	8,547	1,524	88	-556	16,008	1,425
	August	9,974	8,414	1,519	-274	-473	15,753	1,449
	September	10,184	8,619	1,515	307	-259	16,598	1,447
	October	10,092	8,532	1,516	-191	756	16,995	1,430
	November	10,109	8,495	1,571	-8	-84	16,702	1,432
	December	10,204	8,606	1,560	304	993	18,410	1,392
	AVERAGE	10,214	8,597	1,573	-98	-42	17,056	
1981	January	10,168	8,533	1,595	-192	1,139	18,288	1,396
	February	10,250	8,598	1,615	-318	258	16,930	1,398
	March	10,217	8,601	1,581	-490	235	15,838	1,405
	April	10,133	8,543	1,551	-777	180	15,280	1,423
	May	10,115	8,496	1,554	-354	-405	15,196	1,447
	June	10,260	8,616	1,579	-98	396	15,996	1,438
	July	10,021	8,422	1,547	-334	147	15,713	1,444
	August	10,202	8,574	1,582	508	-977	15,236	1,458
	September	10,293	8,598	1,630	-359	-385	15,619	1,481
	October	10,212	8,547	1,601	-761	516	15,840	1,488
	November	10,264	8,595	1,615	-352	-245	15,508	1,506
	December	10,274	8,624	1,605	-130	698	16,602	1,489
	AVERAGE	10,200	8,562	1,588	-304	130	16,001	
1982	January	10,257	8,669	1,548	-236	1,129	15,890	1,461
	February*	10,261	R8,690	1,524	R-216	R1,268	R15,941	1,431
	March**	NA	8,689	NA	-40	845	15,249	1,406
	AVERAGE	NA	8,682	NA	-162	1,074	15,685	

<sup>1</sup> Includes lease condensate.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>3</sup> Ending stocks for 1973-1979 are totals as of December 31.

<sup>4</sup> Includes crude oil, natural gas plant production, other hydrocarbons and alcohol.

<sup>5</sup> Includes stocks located in the Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

\* See Explanatory Note 5.1.

\*\* Preliminary statistics. See Explanatory Note 2.7.

Note: Beginning in January 1975, the Bureau of Mines, Dept. of Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Crude Oil<sup>1</sup> and Petroleum Products Overview ( continued )

		Imports <sup>2</sup>			Exports <sup>3</sup>			Net <sup>5</sup> Imports
		Total	Crude Oil <sup>4</sup>	Petroleum Products	Total	Crude Oil	Petroleum Products	
Thousand Barrels per Day								
1973	AVERAGE	6,256	3,244	3,012	231	2	229	6,025
1974	AVERAGE	6,112	3,477	2,635	221	3	218	5,892
1975	AVERAGE	6,056	4,105	1,951	209	6	204	5,846
1976	AVERAGE	7,313	5,287	2,026	223	8	215	7,090
1977	AVERAGE	8,807	6,615	2,193	243	50	193	8,565
1978	AVERAGE	8,363	6,356	2,008	362	158	204	8,002
1979	AVERAGE	8,456	6,519	1,937	472	235	237	7,984
1980	January	8,598	6,406	2,192	550	322	228	8,048
	February	7,945	6,013	1,931	558	332	227	7,386
	March	7,452	5,695	1,757	573	330	243	6,879
	April	7,106	5,598	1,508	434	192	241	6,672
	May	6,579	5,106	1,472	591	326	266	5,987
	June	6,894	5,480	1,414	654	365	289	6,240
	July	6,257	4,843	1,414	531	238	293	5,727
	August	6,192	4,803	1,389	319	78	241	5,873
	September	6,239	4,707	1,532	557	322	235	5,682
	October	6,379	4,768	1,611	598	309	288	5,781
	November	6,408	4,680	1,728	549	289	260	5,858
	December	6,894	5,082	1,812	622	343	279	6,272
		AVERAGE	6,909	5,263	1,646	544	287	258
1981	January	6,814	4,923	1,892	558	339	219	6,257
	February	6,777	4,873	1,904	569	198	371	6,208
	March	6,026	4,521	1,505	586	210	376	5,440
	April	5,767	4,457	1,310	570	198	372	5,198
	May	5,702	4,267	1,436	595	312	283	5,107
	June	5,422	4,084	1,338	420	123	297	5,002
	July	5,809	4,336	1,473	571	257	314	5,238
	August	5,737	4,165	1,572	644	204	440	5,093
	September	6,326	4,714	1,612	519	194	325	5,807
	October	5,939	4,382	1,557	738	226	512	5,202
	November	5,610	3,992	1,619	701	278	423	4,909
	December	5,896	4,189	1,707	656	189	467	5,240
		AVERAGE	5,981	4,406	1,576	595	228	367
1982	January	5,232	3,648	1,585	829	238	591	4,404
	February*	R4,691	R2,949	R1,742	804	304	499	3,887
	March**	4,126	2,752	1,374	NA	NA	NA	NA
	AVERAGE	4,683	3,122	1,561	NA	NA	NA	NA

<sup>1</sup> Includes lease condensate.

<sup>2</sup> Includes shipments from United States possessions and territories.

<sup>3</sup> Includes shipments to United States possessions and territories.

<sup>4</sup> Includes crude oil for storage in the Strategic Petroleum Reserve.

<sup>5</sup> Net Imports = Imports minus Exports.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

\* See Explanatory Note 5.1.

\*\* Preliminary Statistics. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

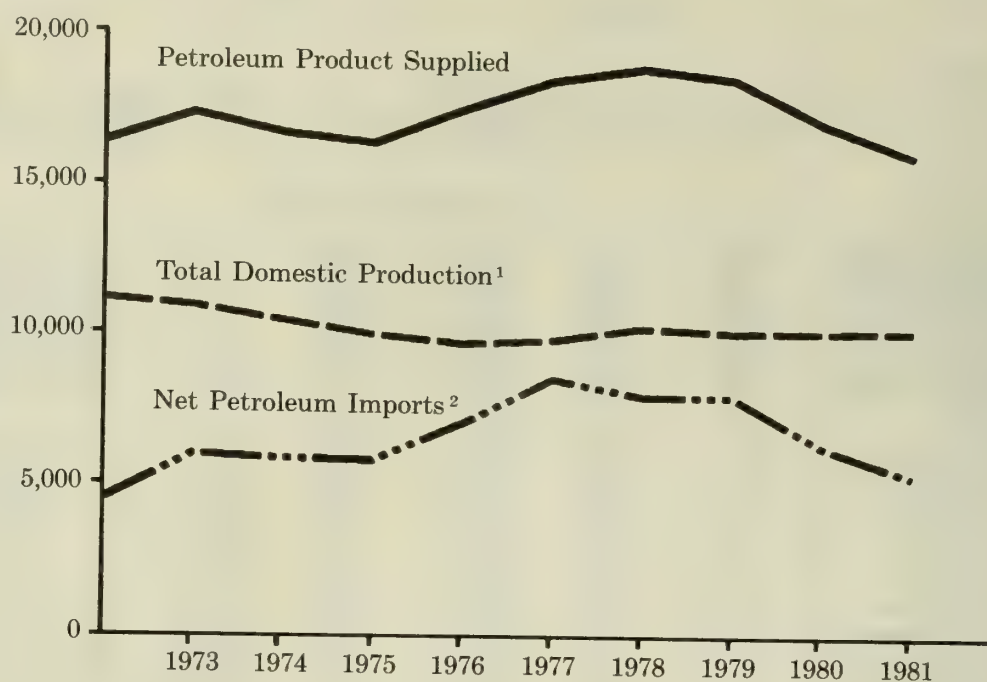
## Petroleum Overview, Annual (Thousand Barrels per Day)

### Legend

Petroleum Products  
Supplied

Total Domestic  
Production<sup>1</sup>

Net Petroleum  
Imports<sup>2</sup>



<sup>1</sup>Includes crude oil and natural gas plant production.

<sup>2</sup>Includes SPR imports.

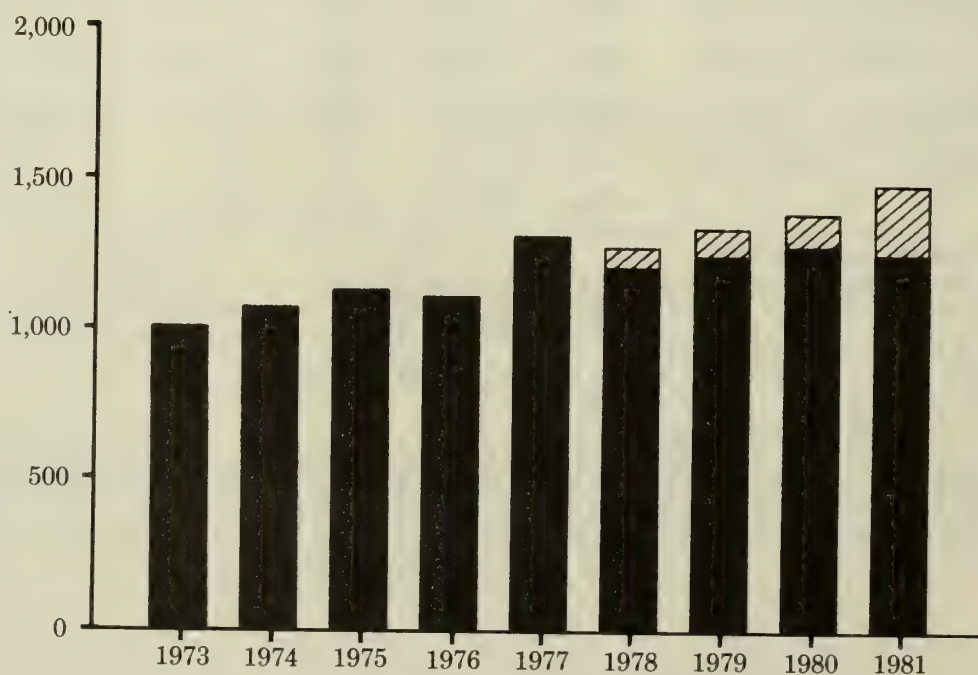
Source table: "Crude Oil and Petroleum Products Overview."

## Crude Oil and Petroleum Products Ending Stocks, Annual (Millions of Barrels)

### Legend

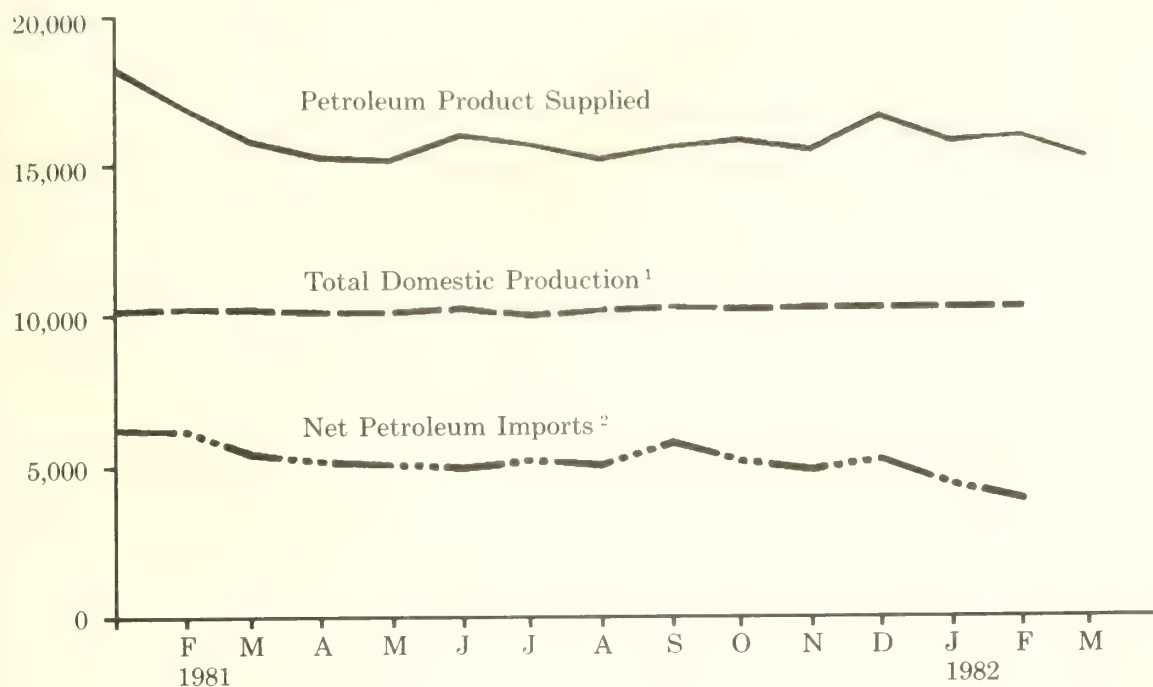
SPR Crude Oil

Crude Oil and  
Petroleum  
Products,  
Excluding SPR



Source tables: "Crude Oil and Petroleum Products Overview" and "Crude Oil Supply and Disposition."

## Petroleum Overview, Monthly (Thousand Barrels per Day)



includes crude oil and natural gas plant production.

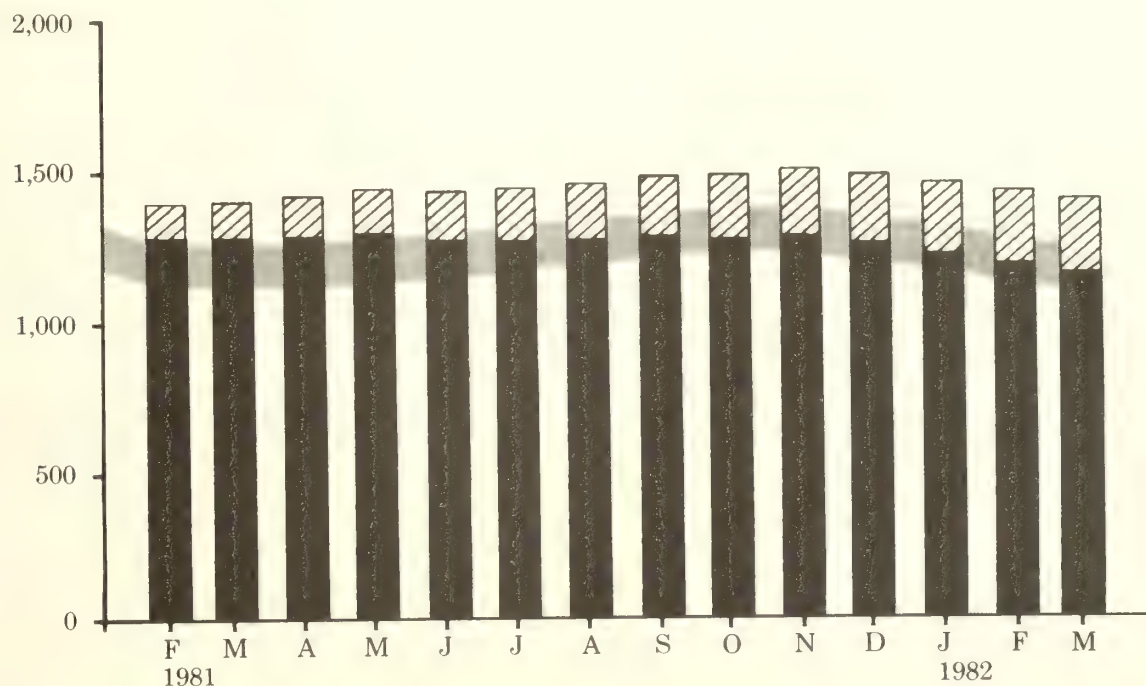
includes SPR imports.

Source table: "Crude Oil and Petroleum Products Overview."

## Crude Oil and Petroleum Product Ending Stocks, Monthly (Millions of Barrels)

### Legend

- ▨ SPR Crude Oil
- Crude Oil and Petroleum Products, Excluding SPR
- ▤ Average Stock Range<sup>1</sup>



Average stock range (excluding SPR) based on 3 years of data. See Explanatory Note 2.5.

Source tables: "Crude Oil and Petroleum Products Overview" and "Crude Oil Supply and Disposition."

# Crude Oil<sup>1</sup> Supply and Disposition

		Supply						
		Field Production		Imports <sup>2</sup>			Stock Withdrawal <sup>3</sup>	
		Total Domestic	Alaskan	Total	SPR <sup>4</sup>	Other	SPR <sup>4</sup>	Other
		Thousand Barrels per Day						
1973	AVERAGE	9,208	198	3,244		3,244		11
1974	AVERAGE	8,774	193	3,477		3,477		-62
1975	AVERAGE	8,375	191	4,105		4,105		-17
1976	AVERAGE	8,132	173	5,287		5,287		-39
1977	AVERAGE	8,245	464	6,615	21	6,594	-20	-150
1978	AVERAGE	8,707	1,229	6,356	162	6,195	-163	84
1979	AVERAGE	8,552	1,401	6,519	67	6,452	-67	-81
1980	January	8,675	1,634	6,406	0	6,406	0	-594
	February	8,705	1,630	6,013	0	6,013	0	-292
	March	8,698	1,647	5,695	0	5,695	0	-47
	April	8,685	1,649	5,598	0	5,598	0	-412
	May	8,635	1,627	5,106	0	5,106	0	-117
	June	8,554	1,626	5,480	0	5,480	0	65
	July	8,547	1,612	4,843	0	4,843	0	88
	August	8,414	1,612	4,803	0	4,803	0	-274
	September	8,619	1,610	4,707	54	4,653	-54	361
	October	8,532	1,588	4,768	131	4,637	-123	-68
	November	8,495	1,561	4,680	142	4,538	-189	181
	December	8,606	1,602	5,082	198	4,884	-177	481
	AVERAGE	8,597	1,617	5,263	44	5,219	-45	-52
1981	January	8,533	1,606	4,923	106	4,817	-151	-41
	February	8,598	1,619	4,873	80	4,793	-127	-191
	March	8,601	1,618	4,521	140	4,382	-155	-335
	April	8,543	1,608	4,457	272	4,185	-444	-333
	May	8,496	1,580	4,267	386	3,881	-513	158
	June	8,616	1,632	4,084	318	3,766	-434	335
	July	8,422	1,605	4,336	175	4,161	-324	-10
	August	8,574	1,602	4,165	257	3,908	-372	880
	September	8,598	1,607	4,714	435	4,279	-486	126
	October	8,547	1,596	4,382	453	3,929	-501	-260
	November	8,595	1,618	3,992	271	3,720	-259	-93
	December	8,624	1,630	4,189	165	4,024	-252	122
	AVERAGE	8,562	1,610	4,406	256	4,150	-336	32
1982	January	8,669	1,712	3,648	170	3,478	-159	-77
	February*	R 8,690	R 1,715	R 2,949	R 159	R 2,790	R -213	R -3
	March**	8,689	1,707	2,752	168	2,584	-236	196
	AVERAGE	8,682	1,711	3,122	166	2,956	-202	40

<sup>1</sup> Includes lease condensate.

<sup>2</sup> Includes shipments from United States possessions and territories.

<sup>3</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>4</sup> Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

\* See Explanatory Note 5.2.

\*\* Preliminary statistics. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Crude Oil<sup>1</sup> Supply and Disposition ( continued )

		Supply (Continued)		Disposition		Ending Stocks <sup>2</sup>		
		Unac- counted for Crude Oil	Crude Used Directly and Losses	Refinery Inputs	Exports <sup>3</sup>	Total Crude Oil	SPR <sup>4</sup>	Other Primary
		Thousand Barrels per Day				Millions of Barrels		
1973	AVERAGE	3	-32	12,431	2	242		242
1974	AVERAGE	-25	-28	12,133	3	265		265
1975	AVERAGE	17	-30	12,442	6	271		271
1976	AVERAGE	77	-33	13,416	8	285		285
1977	AVERAGE	-6	-30	14,602	50	348	7	340
1978	AVERAGE	-57	-30	14,739	158	376	67	309
1979	AVERAGE	-11	-29	14,648	235	430	91	339
1980	January	166	-31	14,301	322	449	91	358
	February	124	-31	14,187	332	457	91	366
	March	-278	-30	13,709	330	459	91	367
	April	-165	-29	13,484	192	471	91	380
	May	55	-28	13,326	326	475	91	383
	June	1	-30	13,705	365	473	91	381
	July	52	-29	13,264	238	470	91	379
	August	147	-28	12,984	78	478	91	387
	September	27	-26	13,313	322	469	93	376
	October	-3	-25	12,772	309	475	97	379
	November	266	-26	13,119	289	475	102	373
	December	24	-26	13,648	343	466	108	358
	AVERAGE	34	-28	13,481	287			
1981	January	352	-28	13,248	339	494	112	381
	February	-29	-23	12,903	198	503	116	387
	March	-10	-29	12,383	210	518	121	397
	April	92	-27	12,090	198	541	134	407
	May	241	-28	12,309	312	552	150	402
	June	-33	-30	12,415	123	555	163	392
	July	162	-62	12,267	257	566	173	393
	August	-71	-61	12,911	204	550	185	365
	September	-184	-65	12,510	194	561	199	361
	October	190	-67	12,065	226	584	215	369
	November	371	-68	12,260	278	595	223	372
	December	-45	-67	12,383	189	599	230	369
	AVERAGE	88	-46	12,477	228			
1982	January	-138	-66	11,638	238	606	235	371
	February*	199	-66	R11,252	304	R612	241	R371
	March**	NA	NA	11,356	NA	625	248	377
	AVERAGE	NA	NA	11,421	NA			

<sup>1</sup> Includes lease condensate.

<sup>2</sup> Ending stocks for 1973-1979 are totals as of December 31.

<sup>3</sup> Includes shipments to United States possessions and territories.

<sup>4</sup> Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

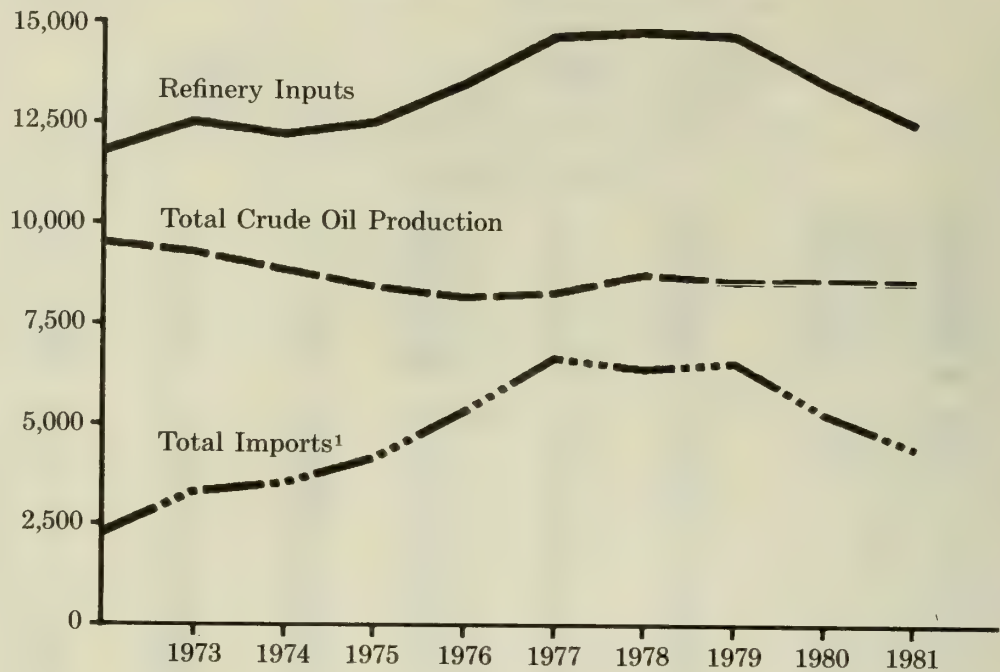
\* See Explanatory Note 5.2.

\*\* Preliminary statistics. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

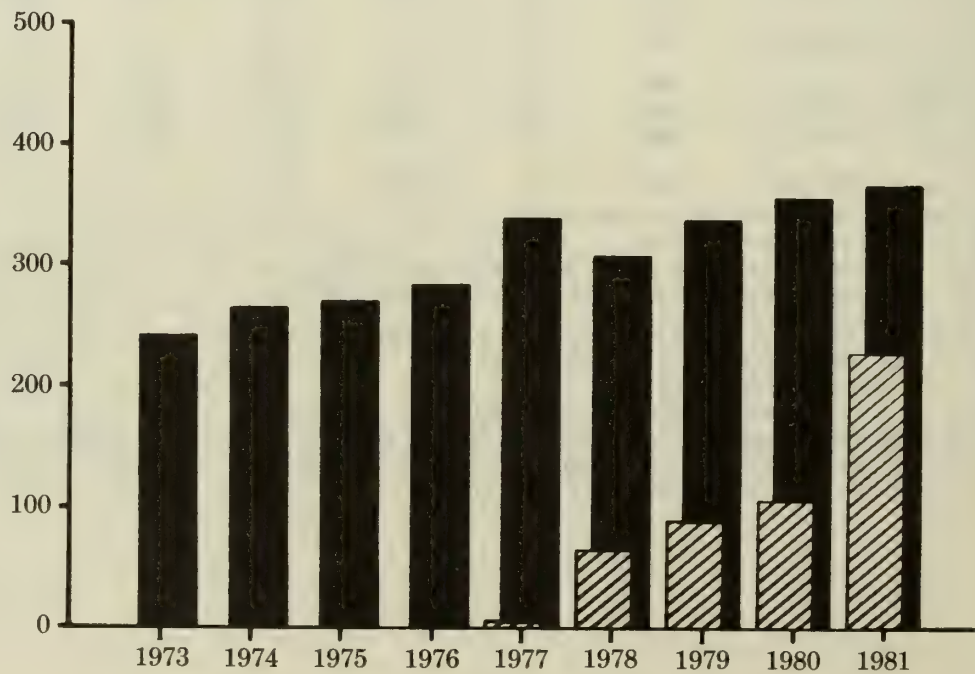
### Crude Oil Supply and Disposition, Annual (Thousand Barrels per Day)



includes SPR imports.  
Source table: "Crude Oil Supply and Disposition."

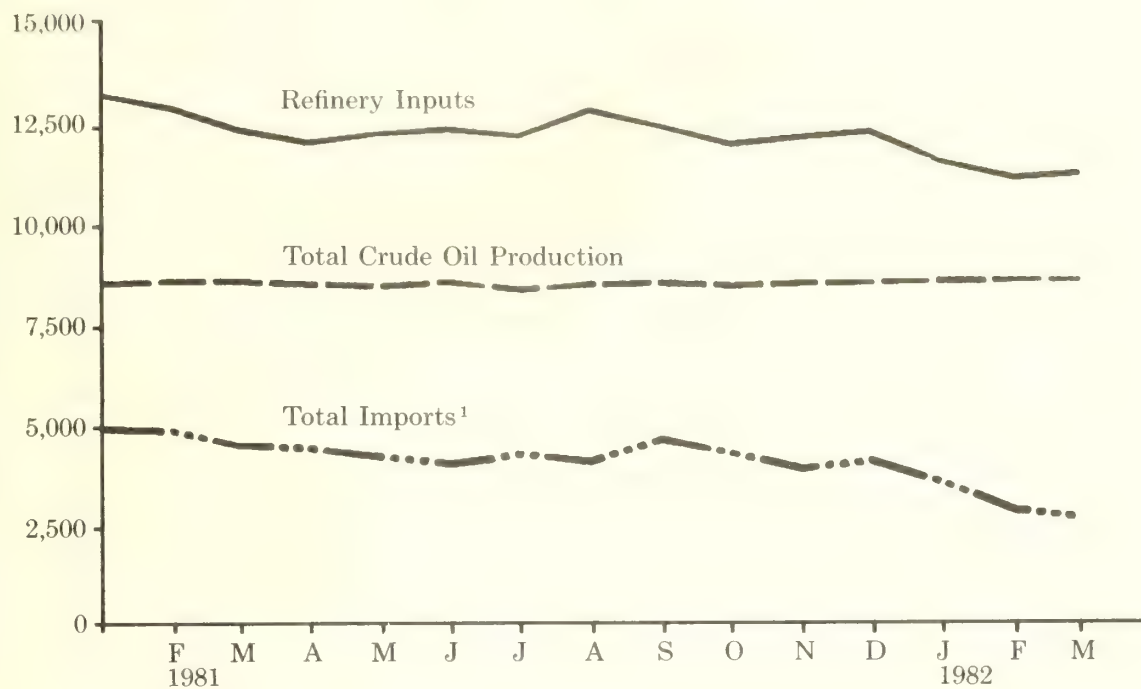
### Crude Oil Ending Stocks, Annual (Millions of Barrels)

**Legend**  
 SPR  
 Other Primary



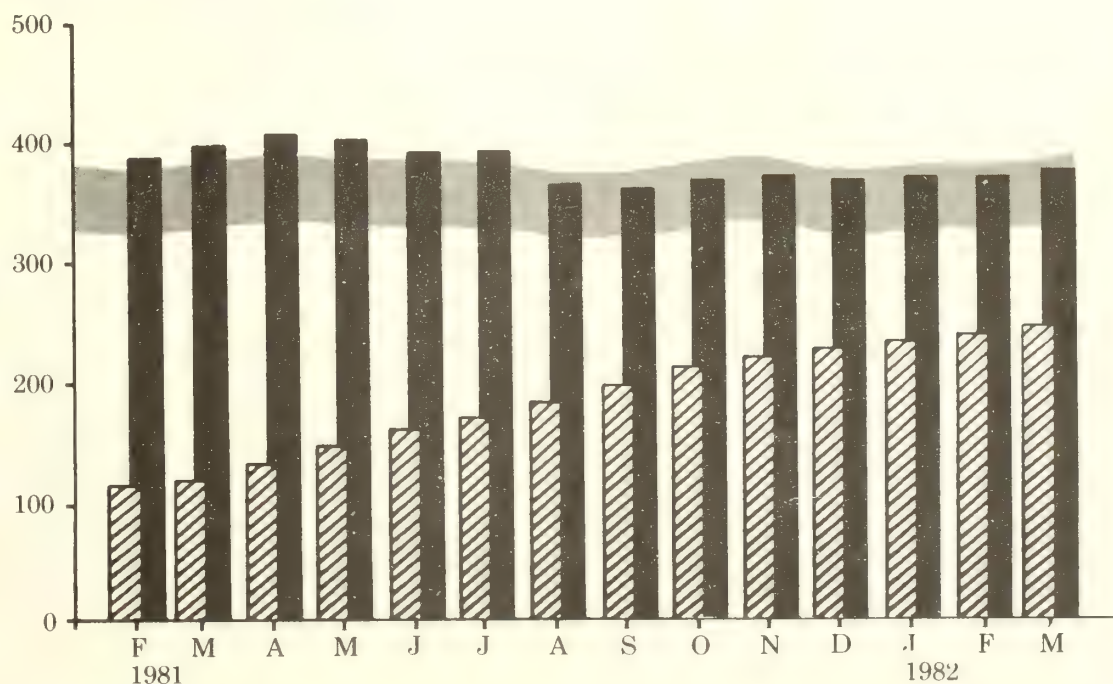
Source table: "Crude Oil Supply and Disposition."

## Crude Oil Supply and Disposition, Monthly (Thousand Barrels per Day)



includes SPR imports.  
Source table: "Crude  
Oil Supply and  
Disposition."

## Crude Oil Ending Stocks, Monthly (Millions of Barrels)



Legend  
SPR  
Other Primary  
Average Stock  
Range¹

Average stock range  
excluding SPR) based  
on 3 years of data. See  
explanatory Note 2.5.  
Source table: "Crude  
Oil Supply and  
Disposition."

# Finished Motor Gasoline Supply and Disposition

		Supply			Disposition				Ending Stocks <sup>1</sup>		
		Total Production	Imports <sup>2</sup>	Stock With-drawal <sup>2 3</sup>	Exports	Product Supplied			Total Motor Gasoline <sup>4</sup>	Finished Motor Gasoline	
						Total	Unleaded <sup>5</sup>	Unleaded			
		Thousand Barrels per Day						Percent of Total	Millions of Barrels		
1973	AVERAGE	6,535	134	9	4	6,674	NA	NA	209		
1974	AVERAGE	6,360	204	-24	2	6,537	NA	NA	218		
1975	AVERAGE	6,520	184	-28	2	6,675	NA	NA	235		
1976	AVERAGE	6,841	131	10	3	6,978	NA	NA	231		
1977	AVERAGE	7,033	217	-72	2	7,177	1,976	27.5	258		
1978	AVERAGE	7,169	190	54	1	7,412	2,521	34.0	238		
1979	AVERAGE	6,852	181	2	(s)	7,034	2,798	39.8	237		
1980	January	6,991	141	-809	1	6,323	2,718	43.0	262		
	February	6,866	154	-423	(s)	6,596	2,969	45.0	275		
	March	6,519	155	-267	(s)	6,406	3,032	47.3	283		
	April	6,284	155	362	1	6,800	3,021	44.4	272		
	May	6,316	132	283	1	6,729	2,980	44.3	263		
	June	6,569	148	-59	1	6,657	3,099	46.6	265		
	July	6,465	149	-132	3	6,743	3,131	46.4	261		
	August	6,452	141	56	1	6,648	3,135	47.2	259		
	September	6,383	106	28	7	6,510	3,054	46.9	258		
	October	6,131	152	380	1	6,662	3,110	46.7	247		
	November	6,467	126	-359	(s)	6,234	3,123	50.1	257		
	December	6,644	121	-133	1	6,632	3,421	51.6	261		
		AVERAGE	6,506	140	-66	1	6,579	3,067	46.6		
	1981	January	6,687	138	-435	(s)	6,389	3,115	48.8	277	227
February		6,282	111	-100	1	6,293	3,103	49.3	284	230	
March		6,213	170	-81	(s)	6,303	3,097	49.1	285	232	
April		6,114	174	298	(s)	6,585	3,281	49.8	272	223	
May		6,121	146	341	1	6,608	3,119	47.2	258	213	
June		6,222	161	620	1	7,001	3,421	48.9	242	194	
July		6,417	118	282	(s)	6,817	3,420	50.2	227	185	
August		6,616	125	-93	3	6,645	3,346	50.4	233	188	
September		6,567	169	-74	2	6,660	3,337	50.1	237	191	
October		6,447	143	10	3	6,598	3,253	49.3	235	190	
November		6,583	145	-333	1	6,395	3,203	50.1	247	200	
December		6,621	196	-91	11	6,715	3,444	51.3	251	203	
		AVERAGE	6,409	150	29	2	6,586	3,262	49.5		
1982		January	6,181	114	-358	18	5,920	3,033	51.2	262	214
	February*	R 5,917	133	28	8	R 6,070	3,145	51.8	R 262	213	
	March**	5,944	NA	NA	NA	6,348	NA	NA	247	NA	
	AVERAGE	6,017	NA	NA	NA	6,114	NA	NA			

<sup>1</sup> Ending stocks for 1973-1979 are totals as of December 31.

<sup>2</sup> Beginning in 1981 excludes blending components.

<sup>3</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>4</sup> Includes motor gasoline blending components.

<sup>5</sup> Includes gasohol.

Totals may not equal sum of components due to independent rounding.

(s) = Less than 500 barrels. NA = Not available. R = Revised data.

\* See Explanatory Note 5.3.

\*\* Preliminary statistics. See Explanatory Note 2.7.

Notes: Beginning in January 1981, the Energy Information Administration modified survey forms, definitions, and processing procedures. See Explanatory Note 4 on Changes for the effects on motor gasoline statistics.

Beginning in January 1975, the Bureau of Mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks <sup>1</sup>
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Crude Used Directly	Exports	Product Supplied	
		Thousand Barrels per Day						
								Millions of Barrels
1973	AVERAGE	2,822	392	-115	2	9	3,092	196
1974	AVERAGE	2,669	289	-9	2	2	2,948	200
1975	AVERAGE	2,654	155	40	2	1	2,851	209
1976	AVERAGE	2,924	146	62	1	1	3,133	186
1977	AVERAGE	3,278	250	-176	1	1	3,352	250
1978	AVERAGE	3,167	173	93	1	3	3,432	216
1979	AVERAGE	3,153	193	-34	1	3	3,311	229
1980	January	3,014	179	526	1	7	3,714	212
	February	2,766	237	716	1	8	3,712	192
	March	2,558	193	445	1	19	3,179	178
	April	2,461	154	21	2	2	2,635	177
	May	2,474	126	-199	1	1	2,402	183
	June	2,647	108	-439	1	(s)	2,317	197
	July	2,690	117	-557	2	3	2,249	214
	August	2,462	77	-403	2	(s)	2,137	226
	September	2,686	101	-201	2	(s)	2,587	232
	October	2,590	115	215	1	(s)	2,920	226
	November	2,703	133	111	1	(s)	2,949	222
	December	2,891	166	556	1	(s)	3,615	205
	AVERAGE	2,662	142	64	1	3	2,866	
1981	January	2,988	273	818	11	(s)	4,090	180
	February	2,810	325	267	11	17	3,395	173
	March	2,484	144	254	9	(s)	2,891	165
	April	2,418	116	(s)	10	3	2,541	165
	May	2,454	165	-234	10	(s)	2,395	172
	June	2,502	201	-275	10	(s)	2,437	180
	July	2,403	179	-210	10	2	2,381	187
	August	2,656	159	-439	8	(s)	2,384	200
	September	2,611	129	-217	10	1	2,532	207
	October	2,490	117	182	9	5	2,792	201
	November	2,729	114	38	11	6	2,886	200
	December	2,862	95	317	11	26	3,258	190
	AVERAGE	2,616	167	42	10	5	2,830	
1982	January	2,615	96	780	10	90	3,410	166
	February*	R2,447	R130	R689	11	90	R3,187	R147
	March**	2,273	38	589	NA	NA	2,821	124
	AVERAGE	2,445	87	686	NA	NA	3,138	

<sup>1</sup> Ending stocks for 1973 - 1979 are totals as of December 31.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

Totals may not equal sum of components due to independent rounding.

(s) = Less than 500 barrels per day. NA = Not available. R = Revised data.

\* See Explanatory Note 5.4.

\*\* Preliminary Statistics. See Explanatory Note 2.7.

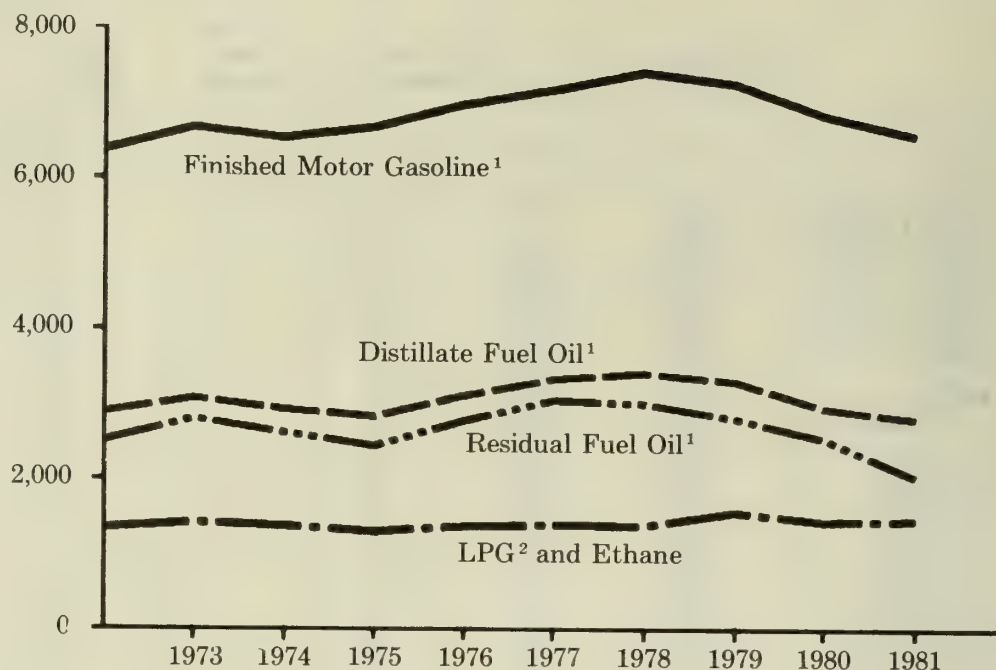
Note: Beginning in January 1981, the Energy Information Administration modified survey forms, definitions, and processing procedures. See Explanatory Note 4 on Changes for the effects on Distillate Fuel Oil statistics.

Beginning in January 1975, the Bureau of Mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

### Products Supplied, Annual (Thousand Barrels per Day)



<sup>1</sup>Figures for 1979 and 1980 recast to account for data system changes in 1981. See Explanatory Note 4.

<sup>2</sup>Liquefied Petroleum Gases.

#### Source tables:

"Finished Motor Gasoline Supply and Disposition,"

"Distillate Fuel Oil Supply and Disposition," "Residual Fuel Oil Supply and Disposition,"

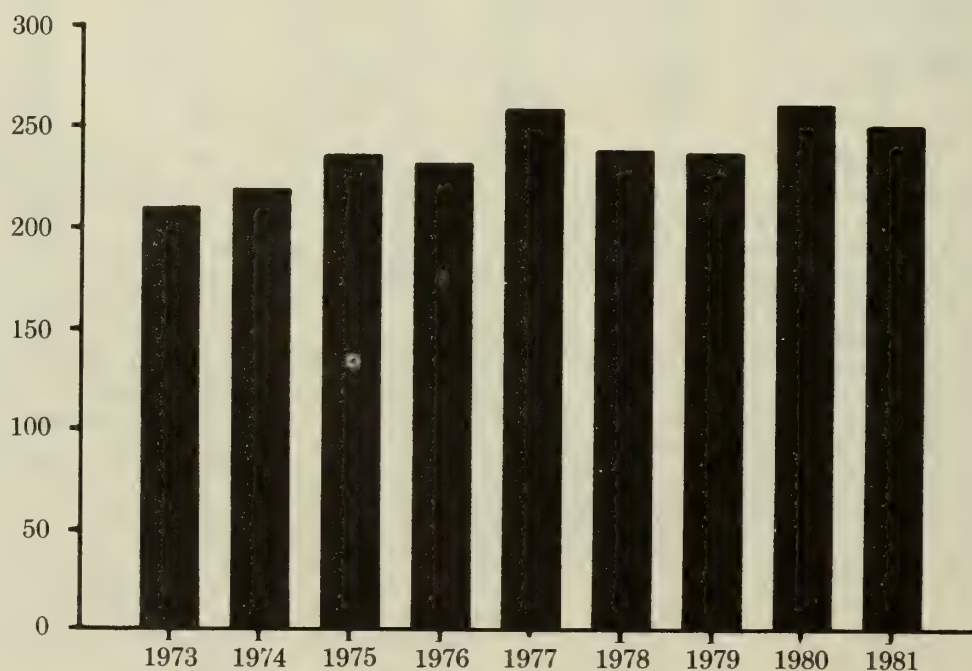
"Liquefied Petroleum Gases and Ethane Supply and Disposition."

<sup>1</sup>Includes finished motor gasoline blending components.

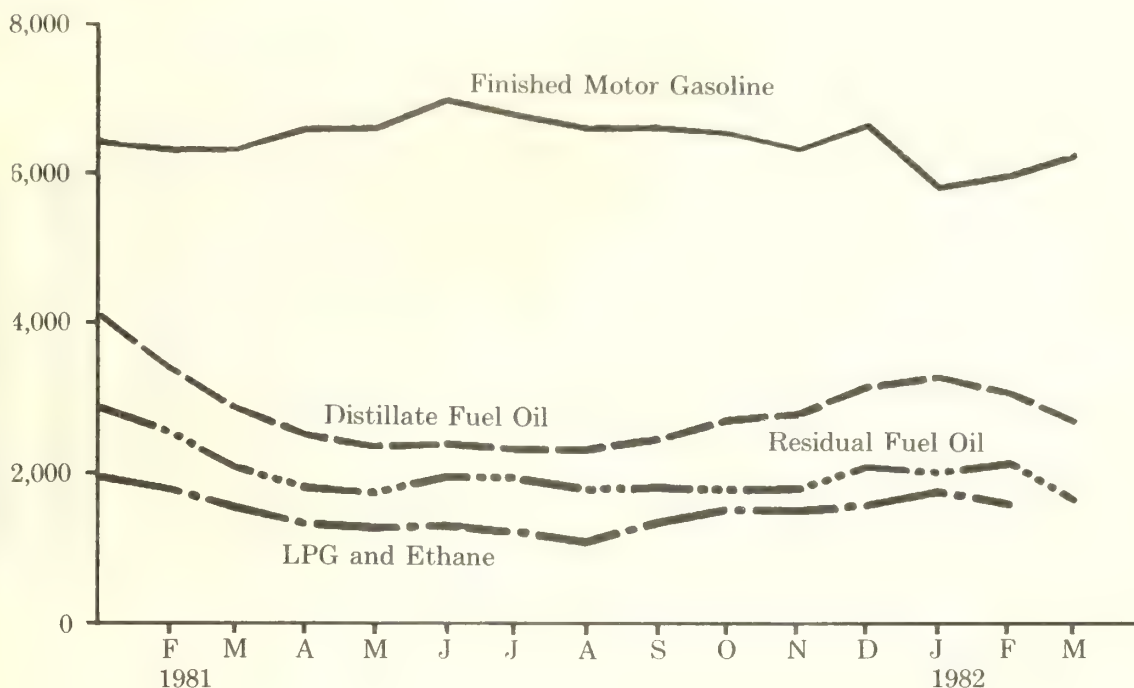
#### Source table:

"Finished Motor Gasoline Supply and Disposition."

### Motor Gasoline<sup>1</sup> Ending Stocks, Annual (Millions of Barrels)



## Products Supplied, Monthly (Thousand Barrels per Day)



<sup>1</sup>Liquefied Petroleum Gases.

Source tables:

"Finished Motor Gasoline Supply and Disposition,"

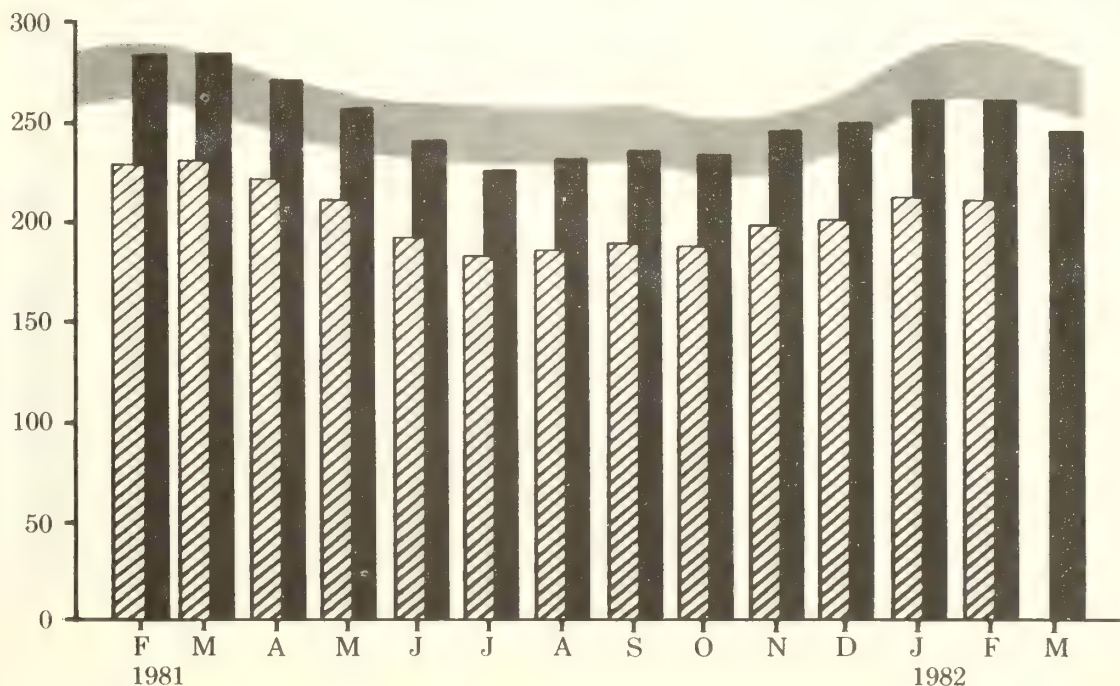
"Distillate Fuel Oil Supply and Disposition," "Residual Fuel Oil Supply and Disposition,"

"Liquefied Petroleum Gases and Ethane Supply and Disposition."

## Motor Gasoline Ending Stocks, Monthly (Millions of Barrels)

### Legend

- Total Motor Gasoline<sup>1</sup>
- ▨ Finished Motor Gasoline
- Average Stock Range<sup>2</sup>



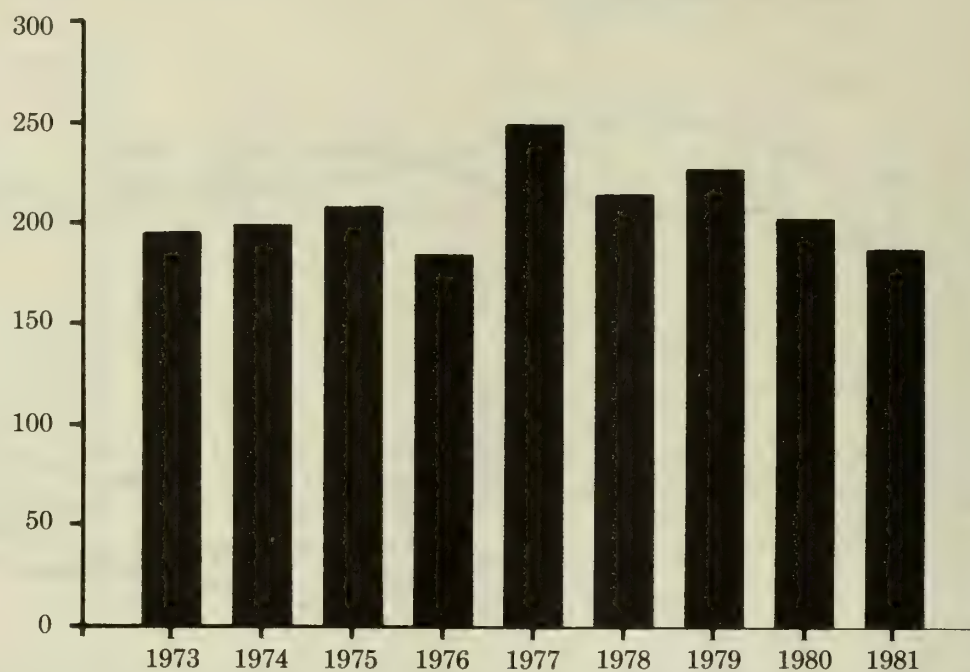
<sup>1</sup>Includes finished motor gasoline blending components.

<sup>2</sup>Average stock range for total motor gasoline based on 3 years of data. See Explanatory Note 2.5.

Source table:

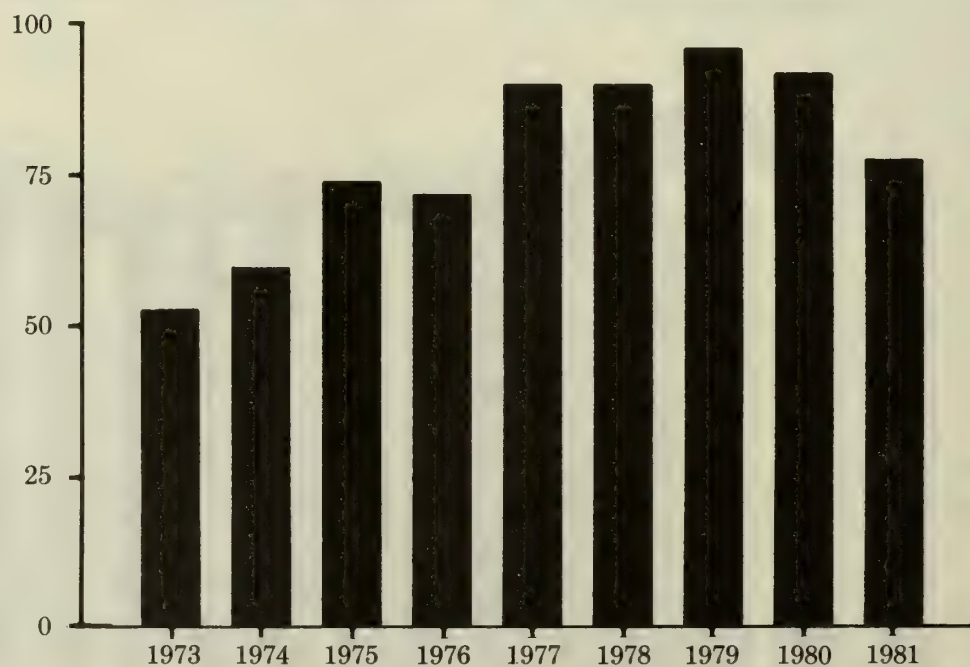
"Finished Motor Gasoline Supply and Disposition."

**Distillate Fuel Oil Ending Stocks, Annual**  
(Millions of Barrels)



Source table:  
"Distillate Fuel Oil  
Supply and  
Disposition."

**Residual Fuel Oil Ending Stocks, Annual**  
(Millions of Barrels)

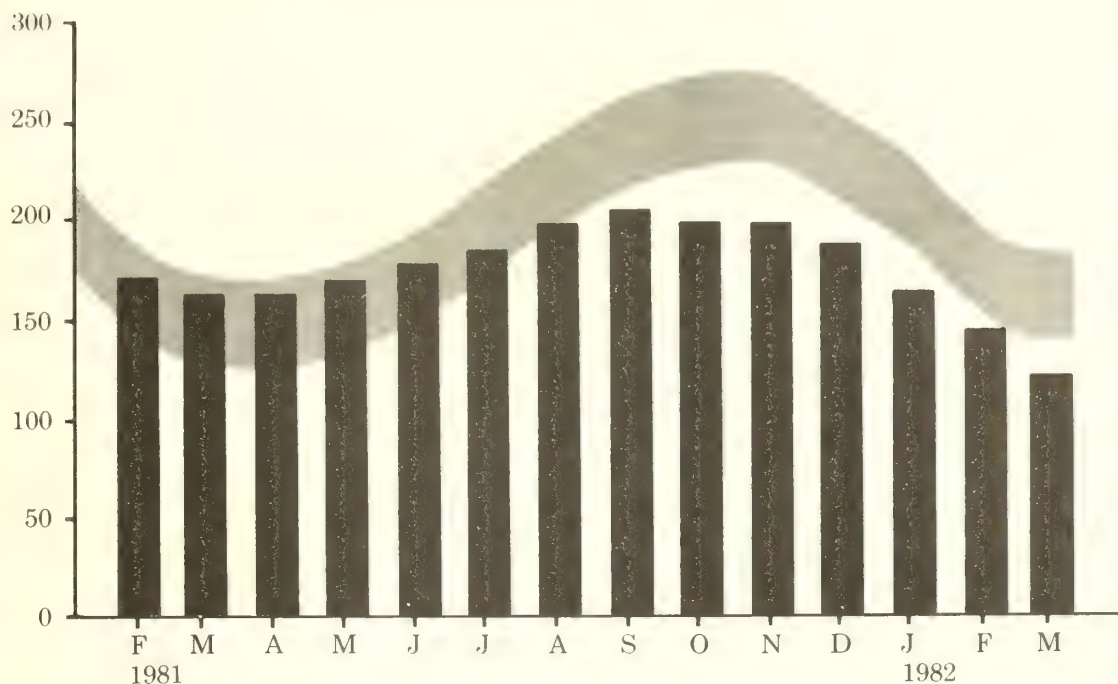


Source table:  
"Residual Fuel Oil  
Supply and  
Disposition."

## Distillate Fuel Oil Ending Stocks, Monthly (Millions of Barrels)

### Legend

■ Average Stock  
Range<sup>1</sup>



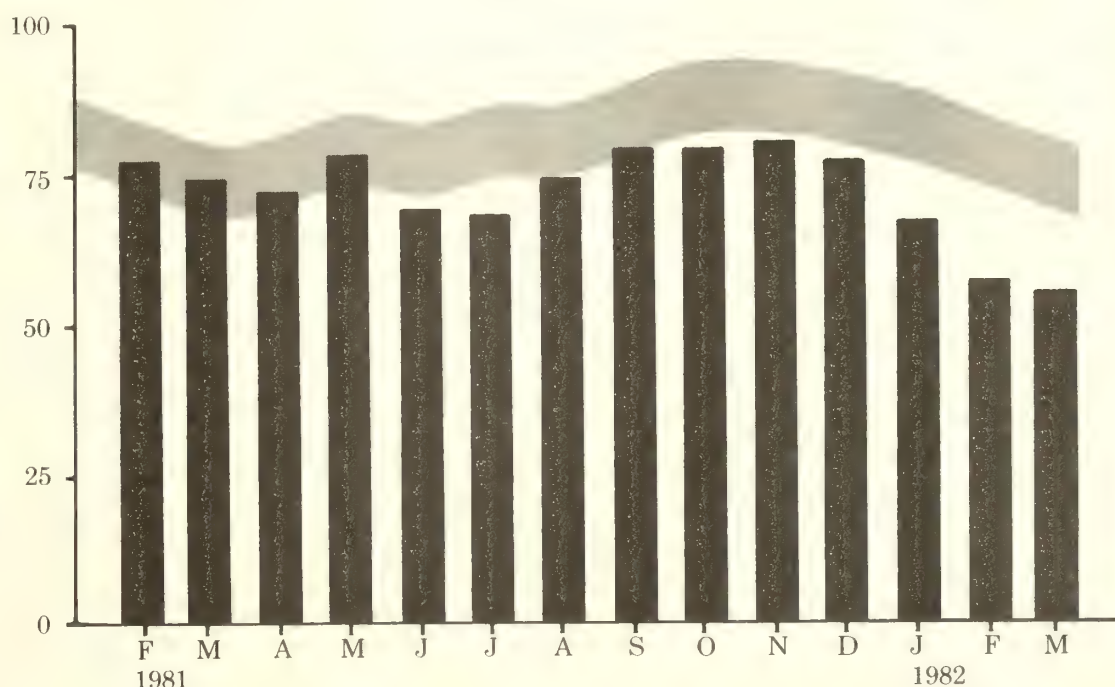
<sup>1</sup>Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table:  
"Distillate Fuel Oil Supply and Disposition."

## Residual Fuel Oil Ending Stocks, Monthly (Millions of Barrels)

### Legend

■ Average Stock  
Range<sup>1</sup>



<sup>1</sup>Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table:  
"Residual Fuel Oil Supply and Disposition."

# Residual Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks <sup>1</sup>
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Crude Used Directly	Exports	Products Supplied	
		Thousand Barrels per Day						
								Millions of Barrels
1973	AVERAGE	971	1,853	5	17	23	2,822	53
1974	AVERAGE	1,070	1,587	-17	13	14	2,639	60
1975	AVERAGE	1,235	1,223	2	15	15	2,462	74
1976	AVERAGE	1,377	1,413	5	17	12	2,801	72
1977	AVERAGE	1,754	1,359	-48	13	6	3,071	90
1978	AVERAGE	1,667	1,355	-1	13	13	3,023	90
1979	AVERAGE	1,687	1,151	-15	12	9	2,826	96
1980	January	1,771	1,338	-51	14	5	3,067	97
	February	1,773	1,122	214	14	17	3,105	91
	March	1,584	976	87	14	2 <sup>a</sup>	2,658	88
	April	1,595	775	102	13	40	2,444	85
	May	1,509	812	-78	12	20	2,235	88
	June	1,575	749	-4	14	14	2,321	88
	July	1,480	787	71	13	60	2,291	86
	August	1,444	875	-43	13	2	2,286	87
	September	1,495	906	-31	10	21	2,359	88
	October	1,512	875	-100	9	70	2,227	91
	November	1,579	1,024	-74	10	88	2,451	93
	December	1,660	1,025	46	10	62	2,679	92
	AVERAGE	1,580	939	10	12	33	2,508	
1981	January	1,611	1,015	298	11	65	2,870	82
	February	1,565	956	144	9	125	2,549	78
	March	1,423	699	107	14	145	2,098	75
	April	1,320	584	63	14	151	1,829	73
	May	1,222	735	-177	14	25	1,769	79
	June	1,232	540	283	14	76	1,993	70
	July	1,174	830	26	48	82	1,995	69
	August	1,230	819	-179	48	69	1,849	75
	September	1,286	841	-174	51	126	1,878	80
	October	1,232	773	8	54	202	1,865	80
	November	1,218	844	-35	53	203	1,878	81
	December	1,295	920	80	52	157	2,191	78
	AVERAGE	1,316	796	36	32	118	2,062	
1982	January	1,183	821	328	53	235	2,150	68
	February*	R1,136	R928	R358	53	213	R2,261	R58
	March**	1,073	845	7	NA	NA	1,765	56
AVERAGE		1,131	862	227	NA	NA	2,052	

<sup>1</sup> Ending Stocks for 1973-1979 are totals as of December 31.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease. Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

\* See Explanatory Note 5.4.

\*\* Preliminary Statistics. See Explanatory Note 2.7.

Notes: Beginning in January 1981, the Energy Information Administration modified survey forms, definitions, and processing procedures.

See Explanatory Note 4 on changes for the effects on residual fuel oil statistics.

Beginning in January 1975, The Bureau of Mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic Coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Liquefied Petroleum Gases and Ethane Supply and Disposition

		Supply			Disposition			Ending Stocks <sup>1</sup>
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Refinery Inputs	Exports	Product Supplied	
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	1,600	132	-35	220	27	1,449	99
1974	AVERAGE	1,565	123	-38	220	25	1,406	113
1975	AVERAGE	1,527	112	-35	246	26	1,333	125
1976	AVERAGE	1,535	130	24	260	25	1,404	116
1977	AVERAGE	1,566	161	-55	233	18	1,422	136
1978	AVERAGE	1,537	123	12	239	20	1,413	132
1979	AVERAGE	1,556	217	70	236	15	1,592	111
1980	January	1,560	264	461	291	30	1,963	96
	February	1,581	252	209	252	26	1,764	90
	March	1,519	214	7	211	23	1,506	90
	April	1,546	186	-339	171	19	1,203	100
	May	1,538	181	-224	182	17	1,295	107
	June	1,528	184	-319	170	18	1,205	117
	July	1,485	172	-283	209	18	1,147	126
	August	1,507	158	-296	203	17	1,149	135
	September	1,495	213	-80	228	19	1,382	137
	October	1,546	249	86	259	24	1,597	134
	November	1,549	231	82	304	23	1,535	132
	December	1,567	289	373	319	23	1,888	120
	AVERAGE	1,535	216	-27	233	21	1,469	
1981	January	1,628	306	373	352	21	1,934	116
	February	1,614	327	166	303	21	1,783	112
	March	1,570	260	-3	257	20	1,550	112
	April	1,598	214	-218	231	26	1,338	118
	May	1,608	189	-273	220	19	1,285	127
	June	1,577	206	-194	235	24	1,330	133
	July	1,526	213	-253	215	17	1,253	141
	August	1,560	195	-241	235	149	1,129	148
	September	1,620	199	-107	287	21	1,404	151
	October	1,608	287	85	317	76	1,586	149
	November	1,667	280	74	382	58	1,581	146
	December	1,610	255	303	447	50	1,671	137
	AVERAGE	1,598	244	-25	290	42	1,485	
1982	January	1,546	314	480	398	67	1,873	122
	February*	1,476	291	310	327	51	1,699	114
	AVERAGE	1,513	303	399	364	59	1,791	

<sup>1</sup> Ending stocks for 1973 - 1979 are totals as of December 31.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

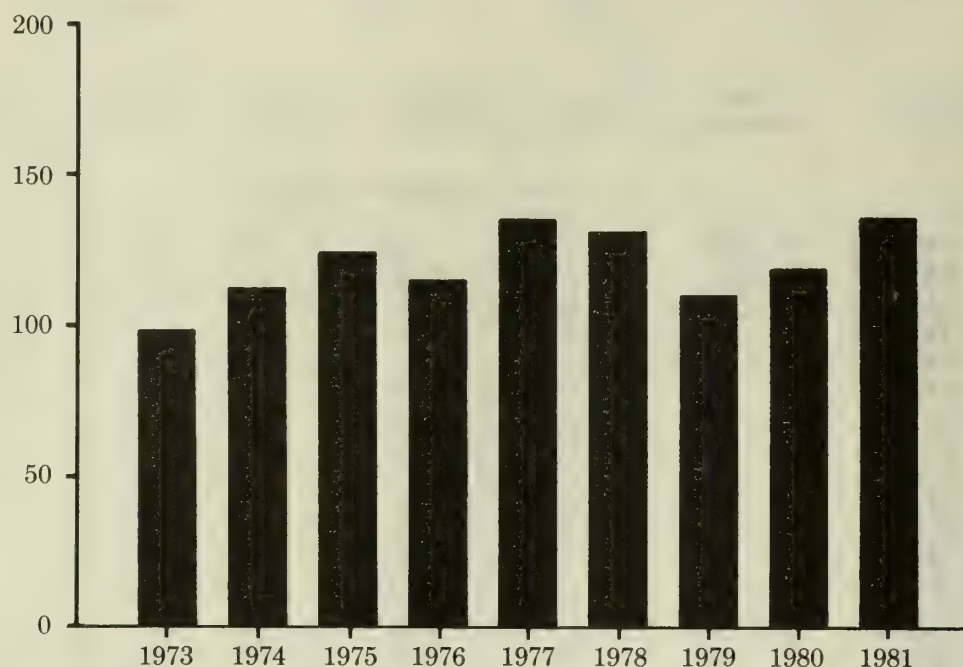
Totals may not equal sum of components due to independent rounding.

\* See Explanatory Note 5.5.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf excluding the Hawaiian Foreign Trade Zone.

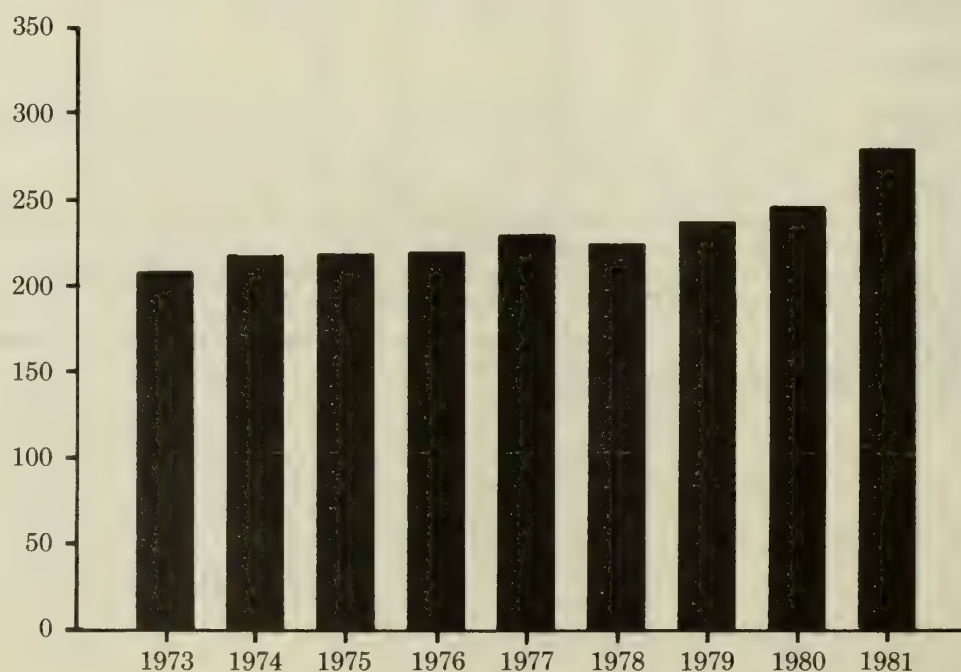
Sources: See "Sources" at the end of this section.

**Liquefied Petroleum Gases and Ethane Ending Stocks, Annual  
(Millions of Barrels)**



**Source table:**  
"Liquefied Petroleum  
Gases and Ethane  
Supply and  
Disposition."

**Other Petroleum Products<sup>1</sup> Ending Stocks, Annual  
(Millions of Barrels)**



<sup>1</sup>Includes natural gasoline and isopentane, unfinished oils, gasoline blending components, jet fuels, kerosene, lubricants, and asphalt. Some gasoline blending components not included prior to 1981.

**Source table:** "Other Petroleum Products Supply and Disposition."

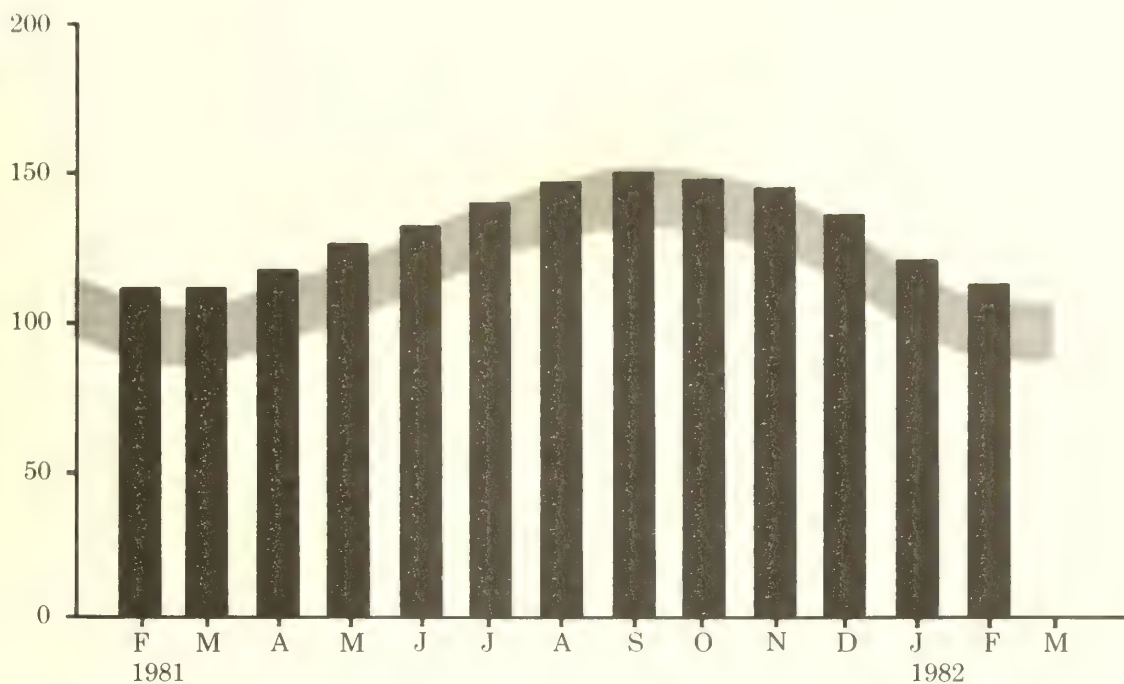
## Liquefied Petroleum Gases and Ethane Ending Stocks, Monthly (Millions of Barrels)

### Legend

■ Average Stock  
Range<sup>1</sup>

Average stock range  
based on 3 years of  
data. See Explanatory  
Note 2.5.

Source table:  
Liquefied Petroleum  
Gases and Ethane  
Supply and  
Disposition."



### Legend

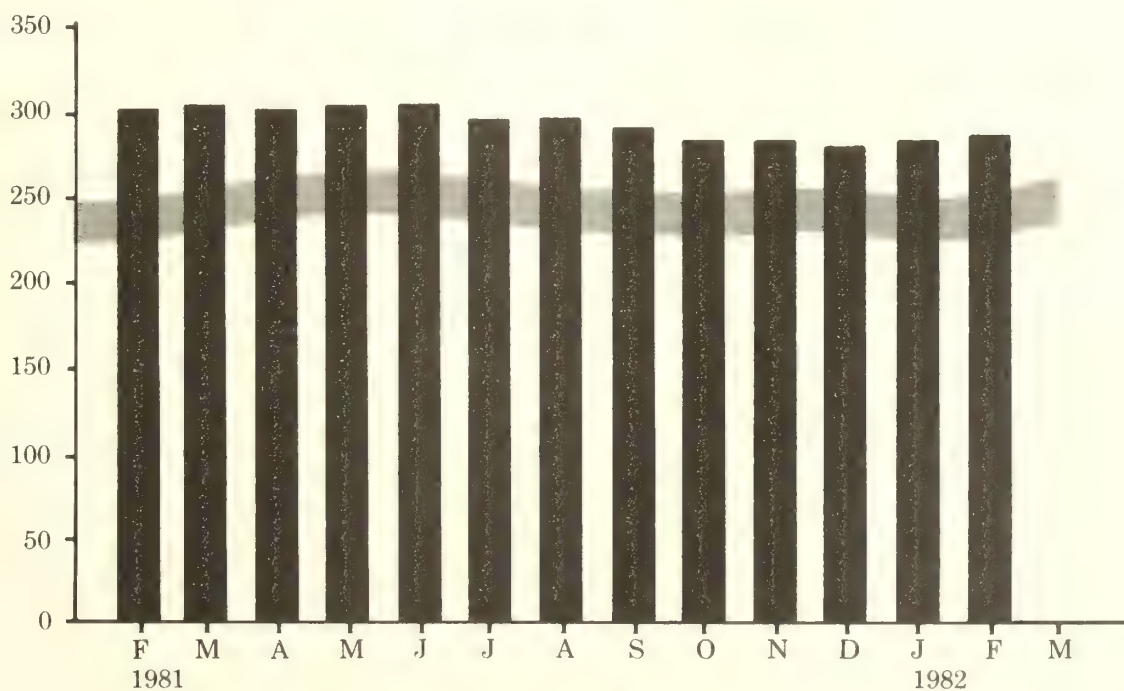
■ Average Stock  
Range<sup>2</sup>

includes natural  
gasoline and  
pentane, unfinished  
gasoline blending  
components, jet fuels,  
kerosene, lubricants,  
and asphalt.

Average stock range  
based on 3 years of  
data. See Explanatory  
Note 2.5.

Source table: "Other  
Petroleum Products  
Supply and  
Disposition."

## Other Petroleum Products<sup>1</sup> Ending Stocks, Monthly (Millions of Barrels)



# Other Petroleum Products<sup>1</sup> Supply and Disposition

		Supply			Disposition			Ending Stocks <sup>2</sup>
		Total Production	Imports	Stock Withdrawal <sup>3</sup>	Refinery Inputs	Exports	Products Supplied	
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	3,693	502	-9	750	166	3,270	208
1974	AVERAGE	3,558	432	-28	665	174	3,123	218
1975	AVERAGE	3,424	277	-2	537	160	3,002	219
1976	AVERAGE	3,643	206	-5	524	175	3,145	220
1977	AVERAGE	3,912	205	-27	514	165	3,410	230
1978	AVERAGE	4,046	166	14	492	167	3,568	225
1979	AVERAGE	4,153	195	-37	352	209	3,749	238
1980	January	4,157	269	135	591	186	3,785	234
	February	4,181	167	-153	380	174	3,641	239
	March	4,128	219	-370	149	200	3,627	250
	April	4,105	238	-374	86	180	3,703	261
	May	4,018	222	-301	135	227	3,577	271
	June	4,016	226	-49	250	256	3,687	272
	July	3,873	188	82	356	209	3,578	270
	August	3,753	138	212	351	221	3,532	263
	September	3,952	206	25	234	188	3,761	262
	October	3,737	220	175	351	193	3,588	257
	November	3,786	213	156	475	148	3,533	252
	December	3,792	209	151	362	194	3,596	247
	AVERAGE	3,956	210	-23	311	198	3,634	
1981	January	3,719	159	86	827	132	3,005	296
	February	3,664	185	-219	513	208	2,909	302
	March	3,660	232	-42	643	210	2,996	304
	April	3,652	223	38	733	192	2,987	302
	May	3,832	201	-61	595	238	3,139	304
	June	3,898	230	-37	659	197	3,236	305
	July	3,840	134	302	797	212	3,267	296
	August	3,875	275	-25	678	219	3,228	297
	September	3,748	273	187	887	176	3,145	291
	October	3,495	237	231	738	227	2,999	284
	November	3,503	215	12	807	154	2,768	284
	December	3,486	207	88	793	223	2,766	281
	AVERAGE	3,693	219	49	724	200	3,038	
1982	January	3,181	240	-102	602	180	2,536	284
	February*	3,364	260	-116	646	138	2,724	287
AVERAGE		3,267	250	-109	623	160	2,625	

<sup>1</sup> Includes natural gasoline and isopentane, unfractionated stream, plant condensate, other liquids; and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil.

<sup>2</sup> Ending Stocks for 1973-1979 are totals as of December 31.

<sup>3</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease. Totals may not equal sum of components due to independent rounding.

\* See Explanatory Note 5.6.

Note: Beginning in January 1975, the Bureau of mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic Coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Crude Oil and Petroleum Product Imports from OPEC Sources

	Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC <sup>1</sup>	Total OPEC	Total Arab OPEC <sup>2</sup>
Thousand Barrels per Day											
<b>1973</b>											
<b>AVERAGE</b>	136	164	486	71	213	223	459	1,135	106	2,993	915
<b>1974</b>											
<b>AVERAGE</b>	190	4	461	74	300	469	713	979	88	3,280	752
<b>1975</b>											
<b>AVERAGE</b>	282	232	715	117	390	280	762	702	122	3,601	1,383
<b>1976</b>											
<b>AVERAGE</b>	432	453	1,230	254	539	298	1,025	700	134	5,066	2,424
<b>1977</b>											
<b>AVERAGE</b>	559	723	1,380	335	541	535	1,143	690	287	6,193	3,185
<b>1978</b>											
<b>AVERAGE</b>	649	654	1,144	385	573	555	919	645	226	5,751	2,963
<b>1979</b>											
<b>AVERAGE</b>	636	658	1,356	281	420	304	1,080	690	212	5,637	3,056
<b>1980</b>											
January	503	618	1,576	202	454	95	1,054	786	179	5,467	3,034
February	656	603	1,412	304	317	9	1,036	543	152	5,031	3,058
March	472	654	1,380	289	405	0	924	352	175	4,652	2,889
April	546	683	1,300	150	374	0	734	343	240	4,369	2,862
May	441	468	1,149	172	360	0	955	405	147	4,098	2,329
June	497	561	1,328	178	331	0	998	409	106	4,408	2,598
July	557	492	1,192	158	365	0	752	417	62	3,995	2,418
August	432	431	1,139	142	289	0	792	406	112	3,743	2,222
September	375	505	1,112	107	299	0	735	425	111	3,670	2,185
October	465	478	1,044	182	348	0	728	482	95	3,821	2,226
November	493	500	1,201	105	348	0	624	595	78	3,944	2,338
December	423	658	1,301	83	288	0	958	610	101	4,423	2,484
<b>AVERAGE</b>	<b>488</b>	<b>554</b>	<b>1,261</b>	<b>172</b>	<b>348</b>	<b>9</b>	<b>857</b>	<b>481</b>	<b>130</b>	<b>4,300</b>	<b>2,551</b>
<b>1981</b>											
January	324	500	1,297	93	424	0	908	556	27	4,129	2,214
February	381	468	1,122	93	407	0	866	466	92	3,895	2,064
March	352	485	1,027	47	328	0	771	360	54	3,425	1,911
April	263	496	1,056	85	314	0	826	237	42	3,317	1,916
May	393	443	929	17	277	0	664	317	124	3,164	1,792
June	390	380	865	60	355	0	519	248	118	2,934	1,736
July	333	251	1,073	80	340	0	651	502	38	3,269	1,757
August	348	274	1,068	61	377	0	321	514	84	3,047	1,751
September	336	154	1,451	96	371	0	323	359	149	3,238	2,036
October	242	147	1,342	90	427	0	412	383	172	3,214	1,820
November	185	132	1,236	112	353	0	517	487	55	3,077	1,665
December	176	122	1,075	158	395	0	698	415	102	3,141	1,532
<b>AVERAGE</b>	<b>310</b>	<b>320</b>	<b>1,128</b>	<b>83</b>	<b>364</b>	<b>0</b>	<b>622</b>	<b>404</b>	<b>88</b>	<b>3,318</b>	<b>1,848</b>
<b>1982</b>											
January	254	161	877	87	273	0	662	376	128	2,818	1,378
February	139	92	692	79	236	0	579	347	102	2,267	1,044
<b>AVERAGE</b>	<b>199</b>	<b>128</b>	<b>789</b>	<b>83</b>	<b>256</b>	<b>0</b>	<b>623</b>	<b>362</b>	<b>115</b>	<b>2,556</b>	<b>1,220</b>

<sup>1</sup> Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

<sup>2</sup> Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

Totals may not equal sum of components due to independent rounding.

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Geographic coverage: The 50 United States and the District of Columbia, including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Crude Oil and Petroleum Product Imports from Non-OPEC Sources

	Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico <sup>1</sup>	Virgin Islands <sup>1</sup>	Other <sup>2</sup>	Total
	Thousand Barrels per Day									
<b>1973</b>										
<b>AVERAGE</b>	174	1,325	16	585	255	15	99	329	465	3,263
<b>1974</b>										
<b>AVERAGE</b>	164	1,070	8	511	251	8	90	391	340	2,832
<b>1975</b>										
<b>AVERAGE</b>	152	846	71	332	242	14	90	406	300	2,454
<b>1976</b>										
<b>AVERAGE</b>	118	599	87	275	274	31	88	422	353	2,247
<b>1977</b>										
<b>AVERAGE</b>	171	517	179	211	289	126	105	466	550	2,614
<b>1978</b>										
<b>AVERAGE</b>	160	467	318	229	253	180	94	429	484	2,613
<b>1979</b>										
<b>AVERAGE</b>	147	538	439	231	190	202	92	431	548	2,819
<b>1980</b>										
January	175	570	545	289	239	296	57	467	492	3,131
February	111	540	477	205	192	105	95	536	652	2,914
March	124	460	460	184	189	232	101	449	601	2,800
April	56	459	546	231	143	182	76	425	619	2,737
May	77	419	576	176	221	124	88	303	496	2,481
June	77	409	627	197	162	146	91	314	465	2,486
July	43	378	460	242	180	115	90	378	376	2,262
August	62	319	646	255	159	196	85	264	463	2,449
September	58	458	550	213	205	218	52	343	473	2,569
October	70	475	605	230	114	134	107	372	450	2,557
November	22	470	459	264	158	157	108	391	435	2,464
December	54	502	445	212	149	195	109	423	378	2,471
<b>AVERAGE</b>	78	455	533	225	176	176	88	388	491	2,609
<b>1981</b>										
January	39	543	401	197	150	219	89	494	553	2,686
February	84	546	437	227	163	271	46	481	626	2,881
March	74	471	488	227	93	263	45	370	570	2,600
April	68	410	440	198	139	402	40	365	404	2,450
May	122	366	522	213	105	352	58	344	455	2,538
June	51	352	537	196	124	397	67	262	502	2,488
July	77	381	384	212	177	558	50	206	495	2,540
August	69	378	489	255	123	592	68	184	533	2,691
September	111	419	708	163	169	528	72	265	653	3,084
October	63	446	668	153	121	351	60	303	559	2,725
November	53	540	612	168	108	253	76	294	429	2,533
December	70	499	588	148	125	290	73	367	595	2,755
<b>AVERAGE</b>	73	445	523	196	133	374	62	327	531	2,663
<b>1982</b>										
January	28	509	426	179	106	346	62	334	425	2,415
February	50	533	489	221	120	132	38	354	487	2,424
<b>AVERAGE</b>	39	520	456	198	113	244	51	344	455	2,419

<sup>1</sup> U.S. Possessions.

<sup>2</sup> Includes all Non-OPEC countries except those shown above.

Totals may not equal sum of components due to independent rounding.

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Geographic coverage: The 50 United States and the District of Columbia, including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

## Sources

- 1973 through 1976: Bureau of Mines, U.S. Department of the Interior, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual," Mineral Industry Surveys.
- 1977 through 1980: Energy Information Administration, U.S. Department of Energy, "Monthly Petroleum Statistics Report," (unleaded gasoline category).
- 1977 through 1980: Energy Information Administration, U.S. Department of Energy, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual," Energy Data Reports.
- January 1981 through December 1981: Energy Information Administration, U.S. Department of Energy, "Monthly Petroleum Statement."
- January through February 1982: Detailed statistics in this issue. (See Explanatory Notes 5.1 through 5.6).
- March 1982: Estimates based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 2.2).
- January through March 1982: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey. (See Explanatory Note 2.7).



## Detailed Statistics





Table 1. U.S. Petroleum Balance, February 1982

	Current Month		Year-to-Date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Crude Oil (Including Lease Condensate)				
Field Production				
(1) Alaska .....	E 48,014	1,715	E 101,073	1,713
(2) Lower 48 States .....	E 195,300	6,975	E 410,976	6,966
(3) Total U.S. ....	E 243,314	8,690	E 512,049	8,679
Net Imports				
(4) Imports (Gross Excluding SPR) .....	78,118	2,790	185,930	3,151
(5) SPR Imports .....	4,463	159	9,734	165
(6) Exports .....	8,521	304	15,904	270
(7) Imports (Net Including SPR) .....	74,060	2,645	179,760	3,047
Other Sources				
(8) SPR Withdrawal (+) or Addition (-) .....	-5,970	-213	-10,900	-185
(9) Other Stock Withdrawal (+) or Addition (-) .....	-75	-3	-2,470	-42
(10) Used Directly and Losses .....	-1,843	-66	-3,890	-66
(11) Unaccounted for 1 .....	5,561	199	1,281	22
(12) Total Other Sources .....	-2,327	-83	-15,979	-271
(13) Crude Input to Refineries .....	315,047	11,252	675,830	11,455
(13) = (3) + (7) + (12)				
Natural Gas Plant Liquids (NGPL)				
(14) Field Production .....	42,674	1,524	90,657	1,537
(15) Imports 2 .....	151	5	602	10
(16) Stock Withdrawal (+) or Addition (-) 2 .....	-1,531	-55	-1,960	-33
(17) Total NGPL Supply .....	41,293	1,475	89,299	1,514
Other Liquids				
Unfinished Oils and Gasoline Blending Components, Total				
(18) Stock Withdrawal (+) or Addition (-) .....	-1,009	-36	-5,202	-88
(19) Imports .....	4,339	155	9,827	167
(20) Other Hydrocarbons and Alcohol New Supply (Field Production) .....	1,308	47	2,561	43
(21) Refinery Processing Gain 1 .....	15,261	545	30,074	510
(22) Crude Used Directly .....	1,786	64	3,733	63
(23) Total Other Liquids .....	21,685	774	40,993	695
(23) = (18) through (22)				
(24) Total Production of Products 3 .....	378,025	13,501	806,122	13,663
(24) = (13) + (17) + (23)				
Net Imports of Refined Products 3				
(25) Imports (Gross) .....	44,274	1,581	87,457	1,482
(26) Exports .....	13,986	499	32,296	547
(27) Imports (Net) .....	30,289	1,082	55,161	935
(28) Total New Supply of Products .....	408,314	14,583	861,283	14,598
(28) = (24) + (27)				
(29) Refined Products Stock Withdrawal (+) or Addition (-) 3 .....	38,046	1,359	77,653	1,316
(30) Total Petroleum Products Supplied for Domestic Use .....	446,360	15,941	938,935	15,914
(30) = (28) + (29)				
(31) Finished Motor Gasoline .....	169,963	6,070	353,485	5,991
(32) Naphtha-Type Jet Fuel .....	5,984	214	10,928	185
(33) Kerosene-Type Jet Fuel .....	23,711	847	49,926	846
(34) Kerosene .....	5,038	180	11,399	193
(35) Distillate Fuel Oil .....	89,243	3,187	194,967	3,305
(36) Residual Fuel Oil .....	63,322	2,261	129,962	2,203
(37) Liquefied Petroleum Gases and Ethane .....	47,570	1,699	105,645	1,791
(38) Other .....	49,582	1,771	101,050	1,713
(39) Total Reclassified 1 .....	-8,052	-288	-18,425	-312
(40) Total Product Supplied .....	446,360	15,941	938,935	15,914
(40) = (31) through (39)				
Ending Stocks, All Oils				
(41) Crude Oil and Lease Condensate (Excluding SPR) .....	370,970	--	370,970	--
(42) Strategic Petroleum Reserve (SPR) .....	241,241	--	241,241	--
(43) Unfinished Oils .....	116,922	--	116,922	--
(44) Gasoline Blending Components .....	49,589	--	49,589	--
(45) Natural Gasoline and Unfractionated Stream .....	17,485	--	17,485	--
(46) Finished Refined Products 3 .....	635,206	--	635,206	--
(47) Total Stocks .....	1,431,413	--	1,431,413	--

1 A balancing item.

2 Includes isopentane, natural gasoline, unfractionated stream, and plant condensate only.

3 For products included see Explanatory Note 5.7.

E = Estimated.

-- Not Applicable.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1, 2, and 5.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, February 1982  
(Thousands of Barrels)

Commodity	Supply					Disposition			Ending Stocks	
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Refinery Inputs	Exports		Products Supplied
Crude Oil (Including lease condensate) .....	E 243,314	0	82,581	-6,045	5,561	-1,843	315,047	8,521	0	612,211
Natural Gas Plant Liquids and LRGs .....	42,321	6,580	8,286	7,139	0	0	14,544	1,420	48,362	130,987
Natural Gasoline and Isopentane .....	5,762	0	(s)	-638	0	0	4,318	0	806	11,429
Unfractionated Stream .....	872	0	0	-887	0	0	2	0	-16	4,550
Plant Condensate .....	934	0	150	-7	0	0	1,075	0	2	1,506
Liquefied Petroleum Gases and Ethane .....	34,753	6,580	8,135	8,671	0	0	9,149	1,420	47,570	113,502
Ethane .....	7,928	156	2,042	-467	0	0	248	(s)	9,411	5,582
Propane .....	12,966	6,180	2,027	5,324	0	0	104	555	25,839	61,301
Butane .....	5,984	223	1,666	3,397	0	0	5,865	864	4,541	20,391
Butane-Propane Mixtures .....	93	15	967	-29	0	0	144	0	902	1,146
Ethane-Propane Mixtures .....	4,975	0	1,433	466	0	0	0	0	6,874	16,879
Isobutane .....	2,805	6	0	-21	0	0	2,788	0	2	8,204
Other Liquids .....	1,308	0	4,339	-1,009	0	0	12,690	0	-8,052	166,511
Other Hydrocarbons and Alcohol .....	1,308	0	0	15	0	0	1,323	0	0	175
Unfinished Oils .....	0	0	3,436	-226	0	0	5,710	0	-2,500	116,922
Motor Gasoline Blending Components .....	0	0	903	-815	0	0	5,664	0	-5,576	48,767
Aviation Gasoline Blending Components .....	0	0	0	17	0	0	-7	0	24	647
Finished Petroleum Products .....	353	350,962	36,140	29,376	0	1,786	0	12,566	406,050	521,704
Finished Motor Gasoline .....	59	165,618	3,729	779	0	0	0	222	169,963	213,368
Finished Leaded Motor Gasoline .....	50	77,642	2,517	1,909	0	0	0	222	81,896	109,760
Finished Unleaded Motor Gasoline .....	9	87,857	1,212	-1,095	0	0	0	0	87,984	103,526
Gasohol .....	0	119	0	-36	0	0	0	0	83	82
Finished Aviation Gasoline .....	20	556	0	-40	0	0	0	0	536	2,728
Naphtha-Type Jet Fuel .....	0	5,192	0	792	0	0	0	(s)	5,984	6,027
Kerosene-Type Jet Fuel .....	0	22,811	1,749	-603	0	0	0	245	23,711	30,962
Kerosene .....	5	4,297	218	518	0	0	0	1	5,038	9,079
Distillate Fuel Oil .....	3	68,515	3,643	19,280	0	313	0	2,511	89,243	146,711
Residual Fuel Oil .....	0	31,816	25,977	10,028	0	1,473	0	5,972	63,322	58,149
Naphtha < 400 Deg. for Petro. Feed. Use .....	0	5,329	188	-58	0	0	0	90	5,369	2,635
Other Oils > 400 Deg. for Petro. Feed. Use .....	0	7,628	0	28	0	0	0	171	7,485	1,664
Special Naphthas .....	59	1,400	238	408	0	0	0	240	1,866	3,738
Lubricants .....	0	4,083	299	112	0	0	0	335	4,159	14,258
Waxes .....	0	384	34	-9	0	0	0	16	393	663
Petroleum Coke .....	0	11,037	0	-321	0	0	0	2,725	7,991	4,468
Asphalt .....	0	5,396	58	-1,190	0	0	0	8	4,256	24,296
Road Oil .....	0	6	0	1	0	0	0	0	7	18
Still Gas .....	0	14,530	0	0	0	0	0	0	14,530	0
Miscellaneous Products .....	207	2,364	6	-351	0	0	0	30	2,197	2,940
Total .....	287,296	357,542	131,345	29,461	5,561	-57	342,281	22,507	446,360	1,431,413

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

(s) Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 3. Year-to-Date Supply and Disposition Statistics of Crude Oil and Petroleum Products, January - February 1982  
(Thousands of Barrels)

Commodity	Supply				Disposition					
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate) .....	E 512,049	0	195,664	-13,370	1,281	-3,890	675,830	15,904	0	612,211
Natural Gas Plant Liquids and LRGs .....	89,712	14,170	18,459	21,584	0	0	32,630	3,510	107,784	130,987
Natural Gasoline and Isopentane .....	12,603	0	313	-1,883	0	0	8,884	0	2,149	11,429
Unfractionated Stream .....	140	0	0	-145	0	0	8	0	-13	4,550
Plant Condensate .....	1,883	0	289	68	0	0	2,237	0	4	1,506
Liquefied Petroleum Gases and Ethane .....	75,086	14,170	17,857	23,544	0	0	21,501	3,510	105,645	113,502
Ethane .....	16,205	340	3,865	-642	0	0	504	(s)	19,264	5,582
Propane .....	28,243	13,700	5,106	15,998	0	0	241	1,332	61,475	61,301
Butane .....	12,771	86	4,142	7,341	0	0	13,872	2,178	8,290	20,391
Butane-Propane Mixtures .....	195	31	1,463	602	0	0	317	0	1,973	1,146
Ethane-Propane Mixtures .....	11,514	0	3,280	-163	0	0	0	0	14,632	16,879
Isobutane .....	6,157	13	0	408	0	0	6,567	0	11	8,204
Other Liquids .....	2,561	0	9,827	-5,202	0	0	25,611	0	-18,425	166,511
Other Hydrocarbons and Alcohol .....	2,561	0	0	47	0	0	2,608	0	0	175
Unfinished Oils .....	0	0	7,570	-4,879	0	0	9,783	0	-7,092	116,922
Motor Gasoline Blending Components .....	0	0	2,257	-414	0	0	13,251	0	-11,408	48,767
Aviation Gasoline Blending Components .....	0	0	0	44	0	0	-31	0	75	64
Finished Petroleum Products .....	945	749,975	69,600	54,109	0	3,733	0	28,786	849,576	521,704
Finished Motor Gasoline .....	157	357,145	7,273	-10,306	0	0	0	784	353,485	213,368
Finished Leaded Motor Gasoline .....	144	169,695	3,932	-1,592	0	0	0	784	171,395	109,760
Finished Unleaded Motor Gasoline .....	13	187,222	3,341	-8,691	0	0	0	0	181,885	103,526
Gasohol .....	0	228	0	-23	0	0	0	0	205	82
Finished Aviation Gasoline .....	73	1,149	0	5	0	0	0	0	1,226	2,728
Naphtha-Type Jet Fuel .....	0	9,929	101	898	0	0	0	(s)	10,928	6,027
Kerosene-Type Jet Fuel .....	0	45,877	1,966	2,583	0	0	0	500	49,926	30,962
Kerosene .....	9	8,707	928	2,006	0	0	0	251	11,399	9,079
Distillate Fuel Oil .....	6	149,565	6,616	43,465	0	619	0	5,304	194,967	146,711
Residual Fuel Oil .....	0	68,489	51,417	20,199	0	3,114	0	13,258	129,962	58,149
Naphtha < 400 Deg. for Petro. Feed .....	0	9,912	386	-117	0	0	0	175	10,005	2,635
Other Oils > 400 Deg. for Petrochem. Feedstock .....	0	16,385	0	86	0	0	0	1,309	15,162	1,664
Special Naphthas .....	94	2,724	330	220	0	0	0	329	3,039	3,738
Lubricants .....	0	8,357	467	-33	0	0	0	730	8,061	14,258
Waxes .....	0	840	45	7	0	0	0	37	855	663
Petroleum Coke .....	0	23,139	0	31	0	0	0	6,007	17,163	4,468
Asphalt .....	0	11,917	59	-4,777	0	0	0	14	7,184	24,296
Road Oil .....	0	9	0	6	0	0	0	0	15	18
Still Gas .....	0	30,315	0	0	0	0	0	0	30,315	0
Miscellaneous Products .....	606	5,516	13	-162	0	0	0	89	5,884	2,940
Total .....	605,267	764,145	293,550	57,121	1,281	-157	734,071	48,200	938,935	1,431,413

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

(s) Less than 500 barrels or less than 500 barrels per day.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, February 1982  
(Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock With-drawal(+) Addi-tion(-)	Unac-counted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Refinery Inputs	Exports	Products Supplied
Crude Oil (Including lease condensate) .....	E 8,690	0	2,949	-216	199	-66	11,252	304	0
Natural Gas Plant Liquids and LRGs .....	1,511	235	296	255	0	0	519	51	1,727
Natural Gasoline and Isopentane .....	206	0	(s)	-23	0	0	154	0	29
Unfractionated Stream .....	31	0	0	-32	0	0	(s)	0	-1
Plant Condensate .....	33	0	5	(s)	0	0	38	0	(s)
Liquefied Petroleum Gases and Ethane .....	1,241	235	291	310	0	0	327	51	1,699
Ethane .....	283	6	73	-17	0	0	9	(s)	336
Propane .....	463	221	72	190	0	0	4	20	923
Butane .....	214	8	59	121	0	0	209	31	162
Butane-Propane Mixtures .....	3	1	35	-1	0	0	5	0	32
Ethane-Propane Mixtures .....	178	0	51	17	0	0	0	0	246
Isobutane .....	100	(s)	0	-1	0	0	100	0	(s)
Other Liquids .....	47	0	155	-36	0	0	453	0	-288
Other Hydrocarbons and Alcohol .....	47	0	0	1	0	0	47	0	0
Unfinished Oils .....	0	0	123	-8	0	0	204	0	-89
Motor Gasoline Blending Components .....	0	0	32	-29	0	0	202	0	-199
Aviation Gasoline Blending Components .....	0	0	0	1	0	0	(s)	0	1
Finished Petroleum Products .....	13	12,534	1,291	1,049	0	64	0	449	14,502
Finished Motor Gasoline .....	2	5,915	133	28	0	0	0	8	6,070
Finished Leaded Motor Gasoline .....	2	2,773	90	68	0	0	0	8	2,925
Finished Unleaded Motor Gasoline .....	(s)	3,138	43	-39	0	0	0	0	3,142
Gasohol .....	0	4	0	-1	0	0	0	0	3
Finished Aviation Gasoline .....	1	20	0	-1	0	0	0	0	19
Naphtha-Type Jet Fuel .....	0	185	0	28	0	0	0	(s)	214
Kerosene-Type Jet Fuel .....	0	815	62	-22	0	0	0	9	847
Kerosene .....	(s)	153	8	19	0	0	0	(s)	180
Distillate Fuel Oil .....	(s)	2,447	130	689	0	11	0	90	3,187
Residual Fuel Oil .....	0	1,136	928	358	0	53	0	213	2,261
Naphtha < 400 Deg. for Petro. Feed. Use .....	0	190	7	-2	0	0	0	3	192
Other Oils > 400 Deg. for Petro. Feed. Use .....	0	272	0	1	0	0	0	6	267
Special Naphthas .....	2	50	9	15	0	0	0	9	67
Lubricants .....	0	146	11	4	0	0	0	12	149
Waxes .....	0	14	1	(s)	0	0	0	1	14
Petroleum Coke .....	0	394	0	-11	0	0	0	97	285
Asphalt .....	0	193	2	-42	0	0	0	(s)	152
Road Oil .....	0	(s)	0	(s)	0	0	0	0	(s)
Still Gas .....	0	519	0	0	0	0	0	0	519
Miscellaneous Products .....	7	84	(s)	-13	0	0	0	1	78
Total .....	10,261	12,769	4,691.	1,052	199	-2	12,224	804	15,941

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

(s) Less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January - February 1982  
(Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate) .....	E 8,679	0	3,316	-227	22	-66	11,455	270	0
Natural Gas Plant Liquids and LRGs .....	1,521	240	313	366	0	0	553	59	1,827
Natural Gasoline and Isopentane .....	214	0	5	-32	0	0	151	0	36
Unfractionated Stream .....	2	0	0	-2	0	0	(s)	0	(s)
Plant Condensate .....	32	0	5	1	0	0	38	0	(s)
Liquefied Petroleum Gases and Ethane .....	1,273	240	303	399	0	0	364	59	1,791
Ethane .....	275	6	66	-11	0	0	9	(s)	327
Propane .....	479	232	87	271	0	0	4	23	1,042
Butane .....	216	1	70	124	0	0	235	37	141
Butane-Propane Mixtures .....	3	1	25	10	0	0	5	0	33
Ethane-Propane Mixtures .....	195	0	56	-3	0	0	248	0	248
Isobutane .....	104	(s)	0	7	0	0	111	0	(s)
Other Liquids .....	43	0	167	-88	0	0	434	0	-312
Other Hydrocarbons and Alcohol .....	43	0	0	1	0	0	44	0	0
Unfinished Oils .....	0	0	128	-83	0	0	166	0	-120
Motor Gasoline Blending Components .....	0	0	38	-7	0	0	225	0	-193
Aviation Gasoline Blending Components .....	0	0	0	1	0	0	-1	0	1
Finished Petroleum Products .....	16	12,711	1,180	917	0	63	0	488	14,400
Finished Motor Gasoline .....	3	6,053	123	-175	0	0	0	13	5,991
Finished Leaded Motor Gasoline .....	2	2,876	67	-27	0	0	0	13	2,905
Finished Unleaded Motor Gasoline .....	(s)	3,173	57	-147	0	0	0	0	3,083
Gasohol .....	0	4	0	(s)	0	0	0	0	3
Finished Aviation Gasoline .....	1	19	0	(s)	0	0	0	0	21
Naphtha-Type Jet Fuel .....	0	168	2	15	0	0	0	(s)	185
Kerosene-Type Jet Fuel .....	0	778	33	44	0	0	0	8	846
Kerosene .....	(s)	148	16	34	0	0	0	4	193
Distillate Fuel Oil .....	(s)	2,535	112	737	0	10	0	90	3,305
Residual Fuel Oil .....	0	1,161	871	342	0	53	0	225	2,203
Naphtha < 400 Deg. for Petro. Feed. Use .....	0	168	7	-2	0	0	0	3	170
Other Oils > 400 Deg. for Petro. Feed. Use .....	0	278	0	1	0	0	0	22	257
Special Naphthas .....	2	46	6	4	0	0	0	6	52
Lubricants .....	0	142	8	-1	0	0	0	12	137
Waxes .....	0	14	1	(s)	0	0	0	1	14
Petroleum Coke .....	0	392	0	1	0	0	0	102	291
Asphalt .....	0	202	1	-81	0	0	0	(s)	122
Road Oil .....	0	(s)	0	(s)	0	0	0	0	(s)
Still Gas .....	0	514	0	0	0	0	0	0	514
Miscellaneous Products .....	10	93	(s)	-3	0	0	0	2	100
Total .....	10,259	12,952	4,975	968	22	-3	12,442	817	15,914

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

(s) Less than 500 barrels per day.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 6. PAD District I, Supply and Disposition of Crude Oil and Petroleum Products, February 1982  
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Disposition			Ending Stocks
								Refinery Inputs	Exports	Products Supplied	
<b>Crude Oil (including lease condensate)</b> .....	<b>E 2,632</b>	<b>0</b>	<b>24,511</b>	<b>-905</b>	<b>5,916</b>	<b>-1</b>	<b>2,567</b>	<b>34,720</b>	<b>0</b>	<b>0</b>	<b>19,457</b>
<b>Natural Gas Plant Liquids and LRGs</b> .....	<b>1,365</b>	<b>1,102</b>	<b>582</b>	<b>601</b>	<b>0</b>	<b>0</b>	<b>2,975</b>	<b>370</b>	<b>36</b>	<b>6,219</b>	<b>3,832</b>
Liquefied Petroleum Gases .....	444	1,102	581	624	0	0	2,975	343	36	5,348	2,881
Ethane .....	338	0	0	-31	0	0	0	0	(s)	307	919
Other Products <sup>3</sup> .....	583	0	(s)	8	0	0	0	27	0	564	32
<b>Other Liquids</b> .....	<b>101</b>	<b>0</b>	<b>914</b>	<b>-251</b>	<b>0</b>	<b>0</b>	<b>888</b>	<b>2,653</b>	<b>0</b>	<b>-1,001</b>	<b>20,475</b>
Other Hydrocarbons and Alcohol .....	101	0	0	-6	0	0	0	95	0	0	8
Unfinished Oils .....	0	0	724	-549	0	0	888	1,871	0	-808	14,614
Motor Gasoline Blending Components .....	0	0	190	304	0	0	0	687	0	-193	5,853
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0
<b>Finished Petroleum Products</b> .....	<b>39</b>	<b>38,273</b>	<b>30,389</b>	<b>21,708</b>	<b>0</b>	<b>0</b>	<b>69,851</b>	<b>0</b>	<b>560</b>	<b>159,700</b>	<b>171,667</b>
Finished Motor Gasoline .....	39	18,098	2,954	1,826	0	0	35,433	0	1	58,349	63,731
Finished Leaded Motor Gasoline .....	39	7,896	1,870	943	0	0	16,156	0	1	26,903	30,390
Finished Unleaded Motor Gasoline .....	0	10,202	1,084	896	0	0	19,277	0	0	31,459	33,326
Gasohol .....	0	0	0	-13	0	0	0	0	0	-13	15
Finished Aviation Gasoline .....	0	0	0	-29	0	0	163	0	0	134	448
Naphtha-Type Jet Fuel .....	0	647	0	115	0	0	691	0	(s)	1,453	713
Kerosene-Type Jet Fuel .....	0	1,147	1,723	422	0	0	6,970	0	0	10,262	7,336
Kerosene .....	0	396	218	327	0	0	1,065	0	(s)	2,006	4,295
Distillate Fuel Oil .....	0	8,051	3,090	10,793	0	0	17,965	0	7	39,892	58,391
Residual Fuel Oil .....	0	5,279	22,034	7,299	0	0	5,959	0	356	40,216	24,891
Naphtha and Other Oils for Petrochem. ....	0	387	77	42	0	0	21	0	43	484	297
Feedstock .....	0	31	23	287	0	0	226	0	2	566	1,045
Special Naphthas .....	0	467	199	341	0	0	385	0	71	1,321	3,943
Lubricants .....	0	77	12	2	0	0	6	0	4	93	130
Waxes .....	0	1,035	0	-46	0	0	0	0	59	930	716
Petroleum Coke .....	0	665	58	318	0	0	143	0	4	1,179	5,240
Asphalt .....	0	0	0	0	0	0	0	0	0	0	0
Road Oil .....	0	1,527	0	0	0	0	0	0	0	1,527	0
Still Gas .....	0	466	1	11	0	0	824	0	14	1,288	491
Miscellaneous Products .....	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b> .....	<b>4,136</b>	<b>39,375</b>	<b>56,396</b>	<b>21,154</b>	<b>5,916</b>	<b>-1</b>	<b>76,281</b>	<b>37,743</b>	<b>596</b>	<b>164,918</b>	<b>215,431</b>

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

<sup>3</sup> Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.

(s) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 7. PAD District II Supply and Disposition of Crude Oil and Petroleum Products, February 1982  
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply Stock With- drawal (+) or Addi- tion (-)	Unac- counted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Refinery Inputs	Disposition		Ending Stocks
									Exports	Products Supplied	
<b>Crude Oil (including lease condensate)</b> .....	<b>E 27,468</b>	<b>0</b>	<b>14,417</b>	<b>1,639</b>	<b>32,613</b>	<b>-7</b>	<b>982</b>	<b>75,998</b>	<b>1,114</b>	<b>0</b>	<b>81,528</b>
<b>Natural Gas Plant Liquids and LRGs</b> .....	<b>7,820</b>	<b>1,917</b>	<b>5,497</b>	<b>1,868</b>	<b>0</b>	<b>0</b>	<b>6,378</b>	<b>5,134</b>	<b>404</b>	<b>17,942</b>	<b>33,740</b>
Liquefied Petroleum Gases .....	6,981	1,895	3,456	1,594	0	0	5,294	3,834	404	14,982	29,094
Ethane .....	1,792	22	2,042	-17	0	0	0	2	0	3,836	708
Other Products <sup>3</sup> .....	-953	0	0	291	0	0	1,084	1,298	0	-876	3,938
<b>Other Liquids</b> .....	<b>165</b>	<b>0</b>	<b>594</b>	<b>1,758</b>	<b>0</b>	<b>0</b>	<b>838</b>	<b>3,473</b>	<b>0</b>	<b>-118</b>	<b>33,159</b>
Other Hydrocarbons and Alcohol .....	165	0	0	22	0	0	0	187	0	0	76
Unfinished Oils .....	0	0	203	1,845	0	0	120	1,810	0	358	21,295
Motor Gasoline Blending Components .....	0	0	391	-152	0	0	718	1,433	0	-476	11,690
Aviation Gasoline Blending Components .....	0	0	0	43	0	0	0	43	0	0	98
<b>Finished Petroleum Products</b> .....	<b>17</b>	<b>86,870</b>	<b>769</b>	<b>2,555</b>	<b>0</b>	<b>0</b>	<b>8,427</b>	<b>0</b>	<b>73</b>	<b>98,564</b>	<b>143,488</b>
Finished Motor Gasoline .....	0	48,918	(s)	-291	0	0	6,244	0	0	54,871	67,360
Finished Leaded Motor Gasoline .....	0	24,119	0	955	0	0	2,981	0	0	28,055	36,362
Finished Unleaded Motor Gasoline .....	0	24,761	(s)	-1,229	0	0	3,263	0	0	26,795	30,955
Gasohol .....	0	38	0	-17	0	0	0	0	0	21	43
Finished Aviation Gasoline .....	0	112	0	18	0	0	80	0	0	210	678
Naphtha-Type Jet Fuel .....	0	870	0	130	0	0	31	0	0	1,031	1,067
Kerosene-Type Jet Fuel .....	0	3,332	0	130	0	0	929	0	0	4,391	6,664
Kerosene .....	0	978	0	-51	0	0	289	0	0	1,216	2,096
Distillate Fuel Oil .....	1	17,905	0	3,584	0	0	1,605	0	0	23,095	43,811
Residual Fuel Oil .....	0	3,498	729	452	0	0	-1,005	0	0	3,674	7,288
Naphtha and Other Oils for Petro. Feed .....	0	1,520	0	10	0	0	126	0	0	1,653	477
Special Naphthas .....	0	223	31	170	0	0	68	0	(s)	491	767
Lubricants .....	0	818	(s)	-24	0	0	114	0	10	898	2,167
Waxes .....	0	39	5	-5	0	0	0	0	1	37	74
Petroleum Coke .....	0	3,211	0	-222	0	0	0	0	57	2,932	1,009
Asphalt .....	0	1,883	0	-1,357	0	0	57	0	1	582	9,581
Road Oil .....	0	1	0	-2	0	0	0	0	0	-1	11
Still Gas .....	0	3,423	0	0	0	0	0	0	0	3,423	0
Miscellaneous Products .....	15	139	4	13	0	0	-111	0	1	60	438
<b>Total</b> .....	<b>35,470</b>	<b>88,787</b>	<b>21,277</b>	<b>7,819</b>	<b>32,613</b>	<b>-7</b>	<b>16,625</b>	<b>84,605</b>	<b>1,591</b>	<b>116,388</b>	<b>291,915</b>

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

<sup>3</sup> Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.

(s) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 8. PAD District III Supply and Disposition of Crude Oil and Petroleum Products, February 1982  
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Disposition			Ending Stocks
								Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate) .....	E 117,600	0	38,172	-5,519	-25,172	-33	13,015	138,063	0	0	407,504
<b>Natural Gas Plant Liquids and LRGs</b> .....	<b>30,631</b>	<b>2,684</b>	<b>967</b>	<b>4,312</b>	<b>0</b>	<b>0</b>	<b>-9,272</b>	<b>7,429</b>	<b>831</b>	<b>21,062</b>	<b>90,686</b>
Liquefied Petroleum Gases .....	18,449	2,554	967	6,557	0	0	-8,451	3,550	831	15,695	73,558
Ethane .....	5,782	130	0	-419	0	0	0	246	0	5,247	3,954
Other Products <sup>3</sup> .....	6,399	0	0	-1,826	0	0	-821	3,633	0	119	13,174
<b>Other Liquids</b> .....	<b>595</b>	<b>0</b>	<b>2,710</b>	<b>-1,588</b>	<b>0</b>	<b>0</b>	<b>-1,936</b>	<b>6,646</b>	<b>0</b>	<b>-6,865</b>	<b>69,922</b>
Other Hydrocarbons and Alcohol .....	595	0	0	-1	0	0	0	594	0	0	88
Unfinished Oils .....	0	0	2,510	-1,858	0	0	-1,218	1,945	0	-2,511	51,497
Motor Gasoline Blending Components .....	0	0	200	246	0	0	-718	4,106	0	-4,378	17,875
Aviation Gasoline Blending Components .....	0	0	0	25	0	0	0	1	0	24	462
<b>Finished Petroleum Products</b> .....	<b>275</b>	<b>155,355</b>	<b>3,150</b>	<b>7,259</b>	<b>0</b>	<b>11</b>	<b>-81,409</b>	<b>0</b>	<b>5,626</b>	<b>79,014</b>	<b>126,629</b>
Finished Motor Gasoline .....	16	69,051	225	718	0	0	-43,352	0	0	26,658	51,402
Finished Leaded Motor Gasoline .....	9	30,613	225	1,438	0	0	-20,068	0	0	12,216	26,134
Finished Unleaded Motor Gasoline .....	7	38,436	0	-719	0	0	-23,277	0	0	14,447	25,259
Gasohol .....	0	2	0	0	0	0	-7	0	0	-5	9
Finished Aviation Gasoline .....	20	304	0	-26	0	0	-258	0	0	40	848
Naphtha-Type Jet Fuel .....	0	1,796	0	483	0	0	-846	0	0	1,433	2,634
Kerosene-Type Jet Fuel .....	0	11,691	0	-840	0	0	-8,581	0	226	2,044	9,873
Kerosene .....	5	2,625	0	244	0	0	-1,354	0	0	1,520	2,457
Distillate Fuel Oil .....	2	30,815	488	4,133	0	11	-20,111	0	945	14,393	26,703
Residual Fuel Oil .....	0	11,356	2,047	3,084	0	0	-4,928	0	2,912	8,647	14,351
Naphtha and Other Oils for Petro. Feed. ....	0	10,739	105	-43	0	0	-147	0	208	10,446	3,139
Special Naphthas .....	59	1,067	170	-70	0	0	-294	0	235	718	1,657
Lubricants .....	0	2,494	100	-315	0	0	-649	0	200	1,430	6,619
Waxes .....	0	188	14	13	0	0	-6	0	8	201	392
Petroleum Coke .....	0	3,921	0	-61	0	0	0	0	882	2,978	576
Asphalt .....	0	1,433	0	281	0	0	-200	0	(s)	1,514	4,268
Road Oil .....	0	0	0	0	0	0	0	0	0	0	2
Still Gas .....	0	6,340	0	0	0	0	0	0	0	6,340	0
Miscellaneous Products .....	173	1,515	1	-343	0	0	-683	0	11	653	1,709
<b>Total</b> .....	<b>149,101</b>	<b>158,039</b>	<b>44,998</b>	<b>4,465</b>	<b>-25,172</b>	<b>-22</b>	<b>-79,602</b>	<b>152,138</b>	<b>6,458</b>	<b>93,211</b>	<b>694,741</b>

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

<sup>3</sup> Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.

(s) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 9. PAD District IV Supply and Disposition of Crude Oil and Petroleum Products, February 1982  
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply Stock With- drawal (+) or Addi- tion (-)	Unac- counted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Refinery Inputs	Disposition		Ending Stocks
									Exports	Products Supplied	
<b>Crude Oil (including lease condensate) .....</b>	<b>E 16,965</b>	<b>0</b>	<b>636</b>	<b>-1,598</b>	<b>-5,278</b>	<b>-9</b>	<b>0</b>	<b>10,716</b>	<b>0</b>	<b>0</b>	<b>15,766</b>
<b>Natural Gas Plant Liquids and LRGs .....</b>	<b>1,950</b>	<b>11</b>	<b>769</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>-81</b>	<b>457</b>	<b>0</b>	<b>2,213</b>	<b>1,275</b>
Liquefied Petroleum Gases .....	688	11	661	32	0	0	182	313	0	1,262	975
Ethane .....	16	0	0	(s)	0	0	0	0	0	16	(s)
Other Products <sup>3</sup> .....	1,245	0	107	-11	0	0	-263	144	0	935	300
<b>Other Liquids .....</b>	<b>57</b>	<b>0</b>	<b>49</b>	<b>-280</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-695</b>	<b>0</b>	<b>521</b>	<b>6,636</b>
Other Hydrocarbons and Alcohol .....	57	0	0	0	0	0	0	57	0	0	1
Unfinished Oils .....	0	0	0	129	0	0	0	-378	0	507	3,160
Motor Gasoline Blending Components .....	0	0	49	-409	0	0	0	-374	0	14	3,475
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0
<b>Finished Petroleum Products .....</b>	<b>23</b>	<b>10,618</b>	<b>1</b>	<b>-296</b>	<b>0</b>	<b>9</b>	<b>851</b>	<b>0</b>	<b>1</b>	<b>11,205</b>	<b>15,571</b>
Finished Motor Gasoline .....	4	5,407	0	70	0	0	456	0	0	5,937	6,437
Finished Leaded Motor Gasoline .....	3	3,426	0	106	0	0	178	0	0	3,713	4,228
Finished Unleaded Motor Gasoline .....	2	1,981	0	-35	0	0	271	0	0	2,218	2,205
Gasohol .....	0	0	0	-1	0	0	7	0	0	6	3
Finished Aviation Gasoline .....	0	27	0	-3	0	0	15	0	0	39	64
Naphtha-Type Jet Fuel .....	0	359	0	-34	0	0	-91	0	0	234	293
Kerosene-Type Jet Fuel .....	0	421	0	8	0	0	522	0	0	951	539
Kerosene .....	0	118	0	-5	0	0	0	0	0	113	75
Distillate Fuel Oil .....	0	2,605	(s)	147	0	0	-51	0	0	2,701	3,906
Residual Fuel Oil .....	0	410	0	-47	0	9	0	0	0	372	669
Naphtha and Other Oils for Petro. Feed .....	0	1	0	0	0	0	0	0	(s)	1	0
Special Naphthas .....	0	5	0	-1	0	0	0	0	0	4	6
Lubricants .....	0	16	1	2	0	0	0	0	0	18	120
Waxes .....	0	18	0	-2	0	0	0	0	0	16	5
Petroleum Coke .....	0	278	0	17	0	0	0	0	0	295	596
Asphalt .....	0	507	0	-447	0	0	0	0	(s)	60	2,857
Road Oil .....	0	0	0	0	0	0	0	0	0	0	3
Still Gas .....	0	425	0	0	0	0	0	0	0	425	0
Miscellaneous Products .....	18	21	0	-1	0	0	0	0	0	39	2
<b>Total .....</b>	<b>18,995</b>	<b>10,629</b>	<b>1,455</b>	<b>-2,151</b>	<b>-5,278</b>	<b>0</b>	<b>770</b>	<b>10,478</b>	<b>1</b>	<b>13,940</b>	<b>39,248</b>

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

<sup>3</sup> Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.

(s) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 10. PAD District V Supply and Disposition of Crude Oil and Petroleum Products, February 1982  
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply			Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Disposition			Ending Stocks
				Stock With- drawal (+) or Addi- tion (-)	Unac- counted For Crude Oil <sup>1</sup>				Refinery Inputs	Exports	Products Supplied	
<b>Crude Oil (including lease condensate)</b> .....	<b>E 78,649</b>	<b>0</b>	<b>4,845</b>	<b>338</b>	<b>-2,518</b>		<b>-1,793</b>	<b>-16,564</b>	<b>55,550</b>	<b>7,407</b>	<b>0</b>	<b>87,956</b>
<b>Natural Gas Plant Liquids and LRGs</b> .....	<b>555</b>	<b>866</b>	<b>471</b>	<b>336</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>1,154</b>	<b>148</b>	<b>926</b>	<b>1,453</b>
Liquefied Petroleum Gases .....	261	862	428	329	0		0	0	861	148	872	1,412
Ethane .....	0	4	0	0	0		0	0	0	0	0	0
Other Products <sup>3</sup> .....	294	0	43	6	0		0	0	293	0	50	41
<b>Other Liquids</b> .....	<b>390</b>	<b>0</b>	<b>72</b>	<b>-648</b>	<b>0</b>		<b>0</b>	<b>210</b>	<b>613</b>	<b>0</b>	<b>-589</b>	<b>36,319</b>
Other Hydrocarbons and Alcohol .....	390	0	0	0	0		0	0	390	0	0	2
Unfinished Oils .....	0	0	0	207	0		0	210	462	0	-45	26,356
Motor Gasoline Blending Components .....	0	0	72	-804	0		0	0	-188	0	-544	9,874
Aviation Gasoline Blending Components .....	0	0	0	-51	0		0	0	-51	0	0	87
<b>Finished Petroleum Products</b> .....	<b>0</b>	<b>59,846</b>	<b>1,831</b>	<b>-1,851</b>	<b>0</b>		<b>1,766</b>	<b>2,280</b>	<b>0</b>	<b>6,306</b>	<b>57,566</b>	<b>64,349</b>
Finished Motor Gasoline .....	0	24,144	550	-1,545	0		0	1,219	0	221	24,147	24,439
Finished Leaded Motor Gasoline .....	0	11,588	422	-1,533	0		0	753	0	221	11,009	12,646
Finished Unleaded Motor Gasoline .....	0	12,477	128	-7	0		0	466	0	0	13,064	11,781
Gasohol .....	0	79	0	-5	0		0	0	0	0	74	12
Finished Aviation Gasoline .....	0	113	0	0	0		0	0	0	0	113	690
Naphtha-Type Jet Fuel .....	0	1,520	0	98	0		0	215	0	0	1,833	1,320
Kerosene-Type Jet Fuel .....	0	6,220	26	-323	0		0	160	0	19	6,064	6,550
Kerosene .....	0	180	(s)	3	0		0	0	0	1	182	156
Distillate Fuel Oil .....	0	9,139	65	624	0		302	592	0	1,560	9,162	13,900
Residual Fuel Oil .....	0	11,273	1,167	-760	0		1,464	-26	0	2,705	10,413	10,950
Naphtha and Other Oils for Petro. Feed .....	0	310	6	-39	0		0	0	0	7	270	386
Special Naphthas .....	0	54	14	22	0		0	0	0	3	87	263
Lubricants .....	0	288	(s)	108	0		0	150	0	54	492	1,409
Waxes .....	0	62	3	-17	0		0	0	0	3	45	62
Petroleum Coke .....	0	2,592	0	-9	0		0	0	0	1,728	855	1,571
Asphalt .....	0	908	0	15	0		0	0	0	2	921	2,350
Road Oil .....	0	5	0	3	0		0	0	0	0	8	2
Still Gas .....	0	2,815	0	0	0		0	0	0	0	2,815	0
Miscellaneous Products .....	0	223	0	-31	0		0	-30	0	4	158	301
<b>Total</b> .....	<b>79,594</b>	<b>60,712</b>	<b>7,219</b>	<b>-1,825</b>	<b>-2,518</b>		<b>-27</b>	<b>-14,074</b>	<b>57,317</b>	<b>13,861</b>	<b>57,903</b>	<b>190,077</b>

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

<sup>3</sup> Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.

(s) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

**Table 11. Production of Crude Oil (including Lease Condensate) by PAD District and State, for the Most Current Month,<sup>1</sup> December 1981  
(Thousands of Barrels)**

PAD District and State		Production	
		Total	Daily Average
<b>PAD District I</b>			
Florida .....	2,499	81	
New York .....	E 57	2	
Pennsylvania .....	E 216	7	
Virginia .....	0	0	
West Virginia .....	E 203	7	
<b>Total</b> .....	E 2,985	96	
<b>PAD District II</b>			
Illinois .....	2,115	68	
Indiana .....	E 391	13	
Kansas .....	5,951	192	
Kentucky .....	547	18	
Michigan .....	2,722	88	
Missouri .....	E 7	(s)	
Nebraska .....	572	18	
North Dakota .....	3,765	121	
Ohio .....	E 1,078	35	
Oklahoma .....	12,522	404	
South Dakota .....	79	3	
Tennessee .....	84	3	
<b>Total</b> .....	E 29,833	962	
<b>PAD District III</b>			
Alabama .....	1,746	56	
Arkansas .....	1,576	51	
Louisiana .....			
Gulf Coast .....	35,295	1,139	
Rest Of State .....	2,983	96	
Total Louisiana .....	38,278	1,235	
Mississippi .....	3,064	99	
New Mexico .....			
Northwestern .....	621	20	
Southeastern .....	5,547	179	
Total New Mexico .....	6,168	199	
Texas .....			
TRRC District 01 .....	2,150	69	
TRRC District 02 .....	3,483	112	
TRRC District 03 .....	10,253	331	
TRRC District 04 .....	2,479	80	
TRRC District 05 .....	716	23	
TRRC District 06, excluding East Texas .....	3,723	120	
TRRC District 07B .....	2,703	87	
TRRC District 07C .....	2,826	91	
TRRC District 08 .....	19,792	638	
TRRC District 08A .....	21,038	679	
TRRC District 09 .....	3,132	101	
TRRC District 10 .....	1,799	58	
East Texas .....	4,698	152	
Total Texas .....	78,792	2,542	
<b>Total</b> .....	129,624	4,181	
<b>PAD District IV</b>			
Colorado .....	2,914	94	
Montana .....	2,719	88	
Utah .....	E 2,150	69	
Wyoming .....	E 11,089	358	
<b>Total</b> .....	E 18,872	609	
<b>PAD District V</b>			
Alaska .....			
South Alaska .....	2,493	80	
North Slope .....	47,814	1,542	
Total Alaska .....	50,307	1,623	
Arizona .....	34	1	
California .....			
Central Coastal .....	6,286	203	
East Central .....	20,471	660	
North .....	17	1	
South .....	6,924	223	
Total California .....	33,698	1,087	
Nevada .....	55	2	
<b>Total</b> .....	84,094	2,713	
<b>United States Total</b> .....	E 265,408	8,562	

<sup>1</sup> Includes offshore production.

(s) Less than 500 barrels.

Sources: See Explanatory Notes on Data Collection and Estimation.

E Estimated.

**Table 12. Offshore Production of Crude Oil (Including Lease Condensate) By State, for the Most Current Month,<sup>1</sup> December 1981 (Thousands of Barrels)**

State	Offshore Production	
	Total	Daily Average
Alaska <sup>2</sup> .....	2,209	71
California .....		
Federal .....	2,270	73
State .....	3,386	109
California, Total .....	5,656	182
Louisiana .....		
Federal .....	21,703	700
State .....	2,113	68
Louisiana, Total .....	23,816	768
Texas .....		
Federal .....	1,152	37
State .....	142	5
Texas, Total .....	1,294	42
<b>United States Total .....</b>	<b>32,975</b>	<b>1,064</b>

<sup>1</sup> These production data are included in Table 11.

<sup>2</sup> All offshore production within State boundaries.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

**Table 13. Production of Lease Condensate by State, for the Most Current Month,<sup>1</sup> December 1981 (Thousands of Barrels)**

State	Lease Condensate Production	
	Total	Daily Average
Alabama .....	1,020	33
California .....	15	(s)
Louisiana .....	6,595	213
Mississippi .....	197	6
New Mexico .....	467	15
Oklahoma .....	769	25
Texas .....	3,434	111
<b>Total .....</b>	<b>12,497</b>	<b>403</b>

<sup>1</sup> These production data are included in Table 11. Small amounts of lease condensate are known to be produced in states other than those listed, however, statistics on this production are not available.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 14. Natural Gas Processing Plant Production of Petroleum Products by PAD District,<sup>1</sup> February 1982  
(Thousands of Barrels)

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States			
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La., Gulf Coast	No. La., Ark.	New Mexico		Total	Rocky Mt.	West Coast
Natural Gas Plant Liquids .....	584	781	1,365	2	1,273	288	6,257	7,820	16,083	3,025	7,455	700	3,367	30,631	1,950	555	42,321
Isopentane .....	0	0	0	0	0	0	296	296	334	76	109	0	0	0	2	0	817
Natural Gasoline .....	76	30	106	0	78	82	1,047	1,207	1,664	-149	1,131	107	267	3,020	337	275	4,945
Unfractionated Stream .....	0	477	477	2	72	24	-2,647	-2,548	6,937	-7,510	424	54	2,120	2,024	901	19	872
Plant Condensate .....	0	0	0	0	64	0	29	93	159	629	44	3	1	835	6	0	934
Liquefied Petroleum Gases and Ethane .....	508	274	782	0	1,058	183	7,532	8,773	6,989	9,979	5,748	537	979	24,232	704	261	34,753
Ethane .....	195	142	338	0	398	0	1,394	1,792	960	2,425	2,265	60	73	5,782	16	0	7,928
Propane .....	193	89	282	0	525	119	3,020	3,664	2,654	3,105	2,021	167	461	8,409	444	168	12,966
Butane .....	105	27	133	0	92	55	1,285	1,432	1,220	1,728	769	178	241	4,136	240	43	5,984
Butane-Propane Mixtures .....	0	0	0	0	1	0	0	1	54	1	1	7	0	62	0	30	93
Ethane-Propane Mixtures .....	0	0	0	0	0	0	1,431	1,431	1,540	1,786	92	2	125	3,545	0	0	4,975
Isobutane .....	14	15	30	0	43	9	402	454	561	934	601	123	78	2,297	4	21	2,805
Finished Motor Gasoline .....	39	0	39	0	0	0	0	0	16	0	0	0	0	16	4	0	59
Finished Leaded Motor Gasoline .....	39	0	39	0	0	0	0	0	9	0	0	0	0	9	3	0	50
Finished Unleaded Motor Gasoline .....	0	0	0	0	0	0	0	0	7	0	0	0	0	7	2	0	9
Gasohol .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Aviation Gasoline .....	0	0	0	0	0	0	0	0	20	0	0	0	0	20	0	0	20
Naphtha-Type Jet Fuel .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene .....	0	0	0	0	0	0	0	0	2	0	0	1	2	5	0	0	5
Distillate Fuel Oil .....	0	0	0	0	0	0	1	1	1	0	1	0	0	2	0	0	3
Special Naphthas .....	0	0	0	0	0	0	0	0	59	0	0	0	0	59	0	0	59
Miscellaneous Products .....	0	0	0	0	1	0	14	15	151	3	1	14	4	173	18	0	207
Total Production .....	623	781	1,403	2	1,274	288	6,272	7,837	16,332	3,028	7,457	716	3,373	30,906	1,973	555	42,674

<sup>1</sup> Production represents quantity of natural gas processing plant output less input to fractionating facilities.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

**Table 15. Refinery Input of Crude Oil and Petroleum Products by PAD District, February 1982**  
(Thousands of Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV		United States		
	East Coast #1	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La., Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V West Coast
Crude Oil (including lease condensate) .....	31,885	2,835	34,720	1,570	45,478	6,150	22,800	75,998	12,849	69,812	48,995	4,257	2,150	138,063	10,716	55,550	315,047
Natural Gas Plant Liquids																	
Natural Gasoline and Isopentane .....	23	4	27	0	347	88	760	1,195	744	1,587	218	108	110	2,767	79	250	4,318
Unfractionated Stream .....	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	2
Plant Condensate .....	0	0	0	0	87	0	16	103	55	613	0	193	3	864	65	43	1,075
LPG and Ethane .....	295	48	343	90	2,282	438	1,026	3,836	649	1,739	1,253	94	61	3,796	313	861	9,149
Ethane .....	0	0	0	0	2	0	0	2	0	162	84	0	0	246	0	0	248
Propane .....	0	0	0	0	53	0	2	55	0	0	47	0	0	47	0	2	104
Normal Butane .....	141	41	182	46	1,381	316	374	2,117	242	879	647	0	10	1,778	61	283	4,421
Other Butanes .....	0	0	0	0	284	61	153	498	86	306	4	0	0	396	173	377	1,444
Butane-Propane Mixtures .....	0	0	0	0	0	0	0	0	10	87	3	0	38	138	6	0	144
Ethane-Propane Mixtures .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Isobutane .....	154	7	161	44	562	61	497	1,164	311	305	468	94	13	1,191	73	199	2,788
Other Liquids																	
Other Hydrocarbons .....	85	10	95	0	183	0	4	187	8	438	148	0	0	594	57	390	1,323
Alcohol .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unfinished Oil (net) .....	1,875	-4	1,871	4	972	31	803	1,810	770	1,764	-800	160	51	1,945	-378	462	5,710
Motor Gasoline Blending .....																	
Components (net) .....	705	-18	687	37	1,347	0	49	1,433	-855	2,938	1,955	66	2	4,106	-374	-188	5,664
Aviation Gasoline Blending .....																	
Components (net) .....	0	0	0	0	43	0	0	43	-39	28	12	0	0	1	0	-51	-7
Total Input to Refineries .....	34,868	2,875	37,743	1,701	50,739	6,707	25,458	84,605	14,181	78,921	51,781	4,878	2,377	152,138	10,478	57,317	342,281
Crude Oil Distillation																	
Gross Input (daily average) .....	1,155	102	1,257	59	1,696	237	826	2,817	505	2,563	1,803	161	85	5,117	388	2,044	11,623
Operable Capacity (daily average) .....	1,663	166	1,829	66	2,532	295	1,150	4,043	660	4,448	2,814	292	123	8,337	633	3,140	17,983
Operating Ratio (percent) <sup>1</sup> .....	69.4	61.7	68.7	90.0	67.0	80.2	71.8	69.7	76.6	57.6	64.1	54.9	69.1	61.4	61.3	65.1	64.6
Crude Oil Qualities																	
Sulfur Content, Weighted Average (percent) .....	.87	.31	.82	.61	.87	1.67	.44	.80	.73	.91	.78	1.63	.34	.86	.71	.99	.86
API Gravity, Weighted Average .....	32.25	38.40	32.79	36.60	36.01	30.83	37.47	36.18	38.12	34.77	34.26	33.12	40.50	34.93	36.80	25.82	33.46

<sup>1</sup> Represents gross input divided by operable capacity.  
Note: Total may not equal sum of components due to independent rounding.  
Source: See Explanatory Notes on Data Collection and Estimation.

Table 16. Refinery Production of Petroleum Products by PAD District, February 1982  
(Thousands of Barrels)

Commodity	PAD District I			PAD District II					PAD District III				PAD			United States	
	East Coast	Appalachian #1	Appalachian #2	Ind., Ky.	Minn., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	Dist. IV West Coast		
Liquefied Petroleum Gases and Ethane	1,032	70	1,102	23	1,277	221	396	1,917	358	1,719	486	77	44	2,684	11	866	6,580
For Petrochemical Feedstock Use	387	0	387	0	162	0	27	189	20	939	33	1	0	993	-11	134	1,692
For Other Uses	645	70	715	23	1,115	221	369	1,728	338	780	453	76	44	1,691	22	732	4,888
Ethane	0	0	0	0	22	0	0	22	0	123	7	0	0	130	0	4	156
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	123	7	0	0	130	0	0	130
For Other Uses	0	0	0	0	22	0	22	22	0	0	0	0	0	0	0	4	26
Propane	843	70	913	23	1,245	221	525	2,014	306	1,538	551	65	35	2,495	113	645	6,180
For Petrochemical Feedstock Use	320	0	320	0	162	0	26	188	0	599	25	0	0	624	2	73	1,207
For Other Uses	523	70	593	23	1,083	221	499	1,826	306	939	526	65	35	1,871	111	572	4,973
Bulane	189	0	189	0	10	0	-129	-119	32	24	-49	10	6	23	-75	205	223
For Petrochemical Feedstock Use	67	0	67	0	0	0	1	1	0	213	1	1	0	215	0	61	344
For Other Uses	122	0	122	0	10	0	-130	-120	32	-189	-50	9	6	-192	-75	144	-121
Bulane-Propane Mixtures	0	0	0	0	0	0	0	0	5	30	-23	2	3	17	-14	12	15
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	5	30	-23	2	3	17	-14	12	15
For Other Uses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Isobutane for Petro. Feed. Use	0	0	0	0	0	0	0	0	15	4	0	0	0	19	-13	0	6
Finished Motor Gasoline	16,948	1,150	18,098	1,002	30,085	3,528	14,303	48,918	7,112	35,262	23,735	1,892	1,050	69,051	5,407	24,144	165,618
Finished Leaded Motor Gasoline	7,309	587	7,896	557	13,782	1,823	7,957	24,119	3,947	12,627	12,130	1,281	628	30,613	3,426	11,588	77,642
Finished Unleaded Motor Gasoline	9,639	563	10,202	445	16,271	1,705	6,340	24,761	3,163	22,635	11,605	611	422	38,436	1,981	12,477	87,857
Gasohol	0	0	0	0	32	0	6	38	2	0	0	0	0	2	0	79	119
Finished Aviation Gasoline	0	0	0	0	76	0	36	112	7	169	128	0	0	304	27	113	556
Naphtha-Type Jet Fuel	647	0	647	0	347	57	466	870	574	616	243	87	276	1,796	359	1,520	5,192
Kerosene-Type Jet Fuel	1,062	85	1,147	133	2,672	131	396	3,332	754	4,717	6,177	19	24	11,691	421	6,220	22,811
Kerosene	319	77	396	0	895	32	51	978	48	1,463	1,087	0	27	2,625	118	180	4,297
Distillate Fuel Oil	7,367	684	8,051	336	9,492	1,592	6,485	17,905	3,068	16,335	9,423	1,283	706	30,815	2,605	9,139	68,515
Distillate Fuel Oil Less No. 4	7,367	664	8,031	336	9,457	1,592	6,485	17,870	3,033	16,028	9,343	1,241	515	30,160	2,575	9,059	67,695
No. 4 Fuel Oil	0	20	20	0	35	0	0	35	35	307	80	42	191	655	30	80	820
Residual Fuel Oil	5,029	250	5,279	133	2,285	456	624	3,498	974	5,457	4,383	403	139	11,356	410	11,273	31,816
Naphtha < 400 Deg. For Petro. Feed. Use	334	0	334	0	297	0	63	360	349	3,957	159	27	0	4,492	1	142	5,329
Other Oils > 400 Deg. For Petro. Feed. Use	8	45	53	0	1,160	0	0	1,160	-20	3,589	2,636	42	0	6,247	0	168	7,628
Special Naphthas	13	18	31	0	127	0	96	223	112	764	43	168	0	1,087	5	54	1,400
Lubricants	122	345	467	0	466	0	352	818	2	1,693	610	189	0	2,494	16	288	4,083
Bright Stock	0	181	181	0	21	0	64	85	0	99	53	0	0	152	0	16	434
Neutral	13	151	164	0	350	0	197	547	0	769	458	79	0	1,306	12	226	2,255
Other Grades	109	13	122	0	95	0	91	186	2	825	99	110	0	1,036	4	46	1,394
Wax	12	65	77	0	15	0	24	39	6	104	58	20	0	188	18	62	384
Microcrystalline	1	11	12	0	0	0	22	22	6	12	0	20	0	38	0	0	72
Crystalline-Fully Refined	3	16	19	0	13	0	-5	8	0	52	58	0	0	110	18	37	192
Crystalline-Other	8	38	46	0	2	0	7	9	0	40	0	0	0	40	0	25	120
Petroleum Coke	1,007	28	1,035	21	1,957	287	946	3,211	278	2,129	1,373	131	10	3,921	278	2,592	11,037
Marketable	330	0	330	0	1,152	175	570	1,897	54	1,050	899	110	0	2,113	149	1,913	6,402
Catalyst	677	28	705	21	805	112	376	1,314	224	1,079	474	21	10	1,808	129	679	4,635
Asphalt	633	32	665	36	899	475	473	1,883	264	245	457	418	49	1,433	507	908	5,396
Road Oil	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	5	6
Still Gas	1,398	129	1,527	55	1,998	219	1,151	3,423	397	3,700	2,041	156	46	6,340	425	2,815	14,530
For Petrochemical Feedstock Use	42	0	42	0	2	0	0	2	2	432	30	0	0	464	1	6	515
For Other Uses	1,356	129	1,485	55	1,996	219	1,151	3,421	395	3,268	2,011	156	46	5,876	424	2,809	14,015
Miscellaneous Products	442	24	466	2	69	17	51	139	103	901	477	34	0	1,515	21	223	2,364
<b>Total Output</b>	<b>36,373</b>	<b>3,002</b>	<b>39,375</b>	<b>1,741</b>	<b>54,118</b>	<b>7,015</b>	<b>25,913</b>	<b>88,787</b>	<b>14,386</b>	<b>82,820</b>	<b>53,516</b>	<b>4,946</b>	<b>2,371</b>	<b>158,039</b>	<b>10,629</b>	<b>60,712</b>	<b>357,542</b>
<b>Processing Gain(-) or Loss(+)</b>	<b>-1,505</b>	<b>-127</b>	<b>-1,632</b>	<b>-40</b>	<b>-3,379</b>	<b>-308</b>	<b>-455</b>	<b>-4,182</b>	<b>-205</b>	<b>-3,899</b>	<b>-1,735</b>	<b>-68</b>	<b>6</b>	<b>-5,901</b>	<b>-151</b>	<b>-3,395</b>	<b>-15,261</b>

1 Represents the arithmetic difference between input and output.  
Notes: Total may not equal sum of components due to independent rounding.  
See Explanatory Notes on negative product yield.  
Source: See Explanatory Notes on Data Collection and Estimation.

Table 17. Percent Refinery Yield of Petroleum Products by PAD District, <sup>1</sup> February 1982  
(Thousands of 42-gallon Barrels)

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States			
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico		Total	Dist. IV Rocky Mt.	Dist. V West Coast
Finished Motor Gasoline <sup>2</sup>	46.9	39.1	46.3	55.6	55.6	48.6	52.7	54.2	47.8	39.0	41.8	32.4	39.7	40.7	50.9	40.7	44.9
Finished Aviation Gasoline <sup>3</sup>	.0	.0	.0	.0	.1	.0	.2	.1	.3	.2	.2	.0	.0	.2	.3	.3	.2
Liquefied Refinery Gases	3.1	2.5	3.0	1.5	2.7	3.6	1.7	2.4	2.6	2.2	1.0	1.7	2.0	1.8	.1	1.5	2.0
Naphtha-Type Jet Fuel	1.9	.0	1.8	.0	.7	.9	2.0	1.1	4.2	.9	.5	2.0	12.5	1.3	3.5	2.7	1.6
Kerosene-Type Jet Fuel	3.1	3.0	3.1	8.4	5.8	2.1	1.7	4.3	5.5	6.6	12.8	.4	1.1	8.4	4.1	11.1	7.1
Kerosene	.9	2.7	1.1	.0	1.9	.5	.2	1.3	.4	2.0	2.3	.0	1.2	1.9	1.1	.3	1.3
Distillate Fuel Oil	21.8	24.2	22.0	21.3	20.4	25.8	27.5	23.0	22.5	22.8	19.6	29.0	32.1	22.0	25.2	16.3	21.4
Residual Fuel Oil	14.9	8.8	14.4	8.4	4.9	7.4	2.6	4.5	7.2	7.6	9.1	9.1	6.3	8.1	4.0	20.1	9.9
Ethane	.0	.0	.0	.0	(s)	.0	.0	(s)	.0	.2	(s)	.0	.0	.1	.0	(s)	(s)
Naphtha < 400 Deg. F. Petro. Feed. Use	1.0	.0	.9	.0	.6	.0	.3	.5	2.6	5.5	.3	.6	.0	.3	(s)	.3	1.7
Other Oils > 400 Deg. F. Petro. Feed. Use	(s)	1.6	.1	.0	2.5	.0	.0	1.5	-1	5.0	5.5	1.0	.0	4.5	.0	.3	2.4
Special Naphthas	(s)	.6	.1	.0	.3	.0	.4	.3	.8	1.1	.1	3.8	.0	.8	(s)	.1	.4
Lubricants	.4	12.2	1.3	.0	1.0	.0	1.5	1.1	(s)	2.4	1.3	4.3	.0	1.8	.2	.5	1.3
Wax	(s)	2.3	.2	.0	(s)	.0	.1	.1	(s)	.1	.1	.5	.0	.1	.2	.1	.1
Petroleum Coke	3.0	1.0	2.8	1.3	4.2	4.6	4.0	4.1	2.0	3.0	2.8	3.0	.5	2.8	2.7	4.6	3.4
Asphalt	1.9	1.1	1.8	2.3	1.9	7.7	2.0	2.4	1.9	.3	.9	9.5	2.2	1.0	4.9	1.6	1.7
Road Oil	.0	.0	.0	.0	(s)	.0	.0	(s)	.0	.0	.0	.0	.0	.0	.0	(s)	(s)
Still Gas for Petro. Feed. Use	.1	.0	.1	.0	(s)	.0	.0	(s)	(s)	.6	.1	.0	.0	.3	(s)	(s)	.2
Still Gas for Other Uses	4.0	4.6	4.1	3.5	4.3	3.5	4.9	4.4	2.9	4.6	4.2	3.5	2.1	4.2	4.1	5.0	4.4
Miscellaneous Products	1.3	.8	1.3	.1	.1	.3	.2	.2	.8	1.3	1.0	.8	.0	1.1	.2	.4	.7
Processing Gain(-) or Loss(+) <sup>4</sup>	-4.5	-4.5	-4.5	-2.5	-7.3	-5.0	-1.9	-5.4	-1.5	-5.4	-3.6	-1.5	.3	-4.2	-1.5	-6.1	-4.8

<sup>1</sup> Based on crude oil input and net reruns of unfinished oils.

<sup>2</sup> Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

<sup>3</sup> Based on finished aviation gasoline output plus net output of aviation gasoline blending components.

<sup>4</sup> Represents the arithmetic difference between Input and Production.

(s) Less than 0.05 percent.

Note: Total may not equal sum of components due to independent rounding.

See Explanatory Notes on negative product yields.

Source: See Explanatory Notes on Data Collection and Estimation.

**Table 18. Refinery Receipts of Crude Oil by PAD District, February 1982**  
(Thousands of Barrels)

Method	PAD District I			PAD District II				PAD District III				PAD District IV			United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Texas Inland	Texas Gulf Coast	La., Ark.	New Mexico	Total	Dist. IV Rocky Mt.	Dist. V West Coast	
Pipeline															
Domestic	0	1,950	1,950	1,164	32,911	3,126	20,694	57,895	10,840	42,675	27,556	2,925	1,661	85,657	179,745
Foreign	0	463	463	352	11,368	3,431	1,227	16,378	1,026	6,418	0	420	0	7,864	25,938
Tanker															
Domestic	2,871	0	2,871	0	0	0	0	0	0	4,155	4,296	0	0	8,451	37,332
Foreign	26,230	0	26,230	0	0	0	0	0	0	11,634	14,661	0	0	26,295	55,776
Barge															
Domestic	0	22	22	0	920	0	0	920	0	3,900	3,965	71	0	7,936	8,878
Foreign	3,720	0	3,720	0	611	0	0	611	0	98	310	141	0	549	4,880
Tank Cars															
Domestic	79	340	419	0	0	0	0	0	0	0	0	18	0	0	437
Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trucks															
Domestic	0	293	293	117	244	12	659	1,032	924	251	550	841	480	3,046	6,379
Foreign	0	0	0	0	0	0	0	141	0	0	0	141	1	0	142
Total															
Domestic	2,950	2,605	5,555	1,281	34,075	3,138	21,353	59,847	11,764	50,981	36,367	3,855	2,141	105,108	232,771
Foreign	29,950	463	30,413	352	11,379	3,431	1,227	16,989	1,167	18,150	14,971	561	0	34,849	86,736

Note: Total may not equal sum of components due to independent rounding.  
Source: See Explanatory Notes on Data Collection and Estimation.

**Table 19. Fuels Consumed at Refineries by PAD District, February 1982**  
(Thousands of Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky	Minn., Wisc., Dak.	Okl., Kans., Mo.	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La. Ark.	New Mexico	Total		Rocky Mt.	West Coast
Crude Oil (including lease condensate)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases <sup>1</sup>	5	27	31	10	170	32	25	236	0	42	142	0	2	186	5	114
Unfinished Oils	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	67	44	111	0	3	0	0	3	14	0	8	0	0	22	0	6
Residual Fuel Oil	816	75	891	13	626	95	58	752	15	305	69	12	0	400	126	228
Marketable Petroleum Coke	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	15
Catalyst Petroleum Coke	541	44	585	21	737	62	347	1,166	224	1,025	474	21	9	1,753	130	680
Still Gas	1,150	129	1,279	55	1,959	219	898	3,131	303	2,921	1,828	153	46	5,252	391	2,711
Other Fuels <sup>2</sup>	0	0	0	0	93	0	0	93	(s)	37	0	0	0	37	0	90
Natural Gas (million cubic feet)	574	350	924	37	3,084	110	4,162	7,394	2,481	15,740	6,861	852	180	26,114	1,634	5,341
Coal (thousand short tons)	0	13	13	0	0	0	0	0	0	0	0	0	0	0	0	0
Purchased Electricity (million kWh)	186	33	219	13	316	41	2,983	3,354	2,371	665	666	671	23	4,396	704	521
Purchased Steam (million pounds)	737	10	747	0	933	0	0	933	5	0	842	0	0	847	0	131

<sup>1</sup> Includes liquefied refinery gases.

<sup>2</sup> Includes small quantities of other petroleum products (e.g., unfinished oils, kerosene, etc.) consumed at refineries.

(s) Less than 500 barrels except where noted.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 20. Imports of Crude Oil and Petroleum Products by PAD District, February 1982  
(Thousands of Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
<b>Crude Oil (Including lease condensate) <sup>1 2</sup></b> .....	<b>24,511</b>	<b>14,417</b>	<b>38,172</b>	<b>636</b>	<b>4,845</b>	<b>82,581</b>
<b>Natural Gas Liquids</b> .....	<b>582</b>	<b>5,497</b>	<b>967</b>	<b>769</b>	<b>471</b>	<b>8,286</b>
Natural Gasoline and Isopentane .....	(s)	0	0	0	0	(s)
Plant Condensate .....	0	0	0	107	43	150
Liquefied Petroleum Gases and Ethane .....	581	5,497	967	661	428	8,135
Ethane .....	0	2,042	0	0	0	2,042
Propane .....	352	1,235	0	395	45	2,027
Butane .....	229	788	0	266	383	1,666
Butane-Propane Mixtures .....	0	0	967	0	0	967
Ethane-Propane Mixtures .....	0	1,433	0	0	0	1,433
<b>Other Liquids <sup>1</sup></b> .....	<b>914</b>	<b>594</b>	<b>2,710</b>	<b>49</b>	<b>72</b>	<b>4,339</b>
Unfinished Oils <sup>1</sup> .....	724	203	2,510	0	0	3,436
Motor Gasoline Blending Components .....	190	391	200	49	72	903
<b>Finished Petroleum Products</b> .....	<b>30,389</b>	<b>769</b>	<b>3,150</b>	<b>1</b>	<b>1,831</b>	<b>36,140</b>
Finished Motor Gasoline .....	2,954	(s)	225	0	550	3,729
Finished Leaded Motor Gasoline .....	1,870	0	225	0	422	2,517
Finished Unleaded Motor Gasoline .....	1,084	(s)	0	0	128	1,212
Finished Aviation Gasoline .....	0	0	0	0	0	0
Naphtha-Type Jet Fuel .....	0	0	0	0	0	0
Kerosene-Type Jet Fuel .....	1,723	0	0	0	26	1,749
Bonded Aircraft Fuel .....	509	0	0	0	20	529
Other .....	1,214	0	0	0	6	1,219
Kerosene .....	218	0	0	0	(s)	218
Distillate Fuel Oil .....	3,090	0	488	(s)	65	3,643
Bonded ships bunkers .....	0	0	0	0	0	0
For military offshore use .....	0	0	0	0	0	0
No. 2 fuel oil .....	3,090	0	488	(s)	65	3,643
No. 4 fuel oil .....	0	0	0	0	0	0
Residual Fuel Oil .....	22,034	729	2,047	0	1,167	25,977
Bonded ships bunkers .....	0	0	0	0	0	0
For military offshore use .....	0	0	0	0	0	0
Other .....	22,034	729	2,047	0	1,167	25,977
Naphtha < 400 Deg. for Petro. Feed. Use .....	77	0	105	0	6	188
Other Oils > 400 Deg. for Petro. Feed. Use .....	0	0	0	0	0	0
Special Naphthas .....	23	31	170	0	14	238
Lubricants .....	199	(s)	100	1	(s)	299
Wax .....	12	5	14	0	3	34
Asphalt .....	58	0	0	0	0	58
Miscellaneous Products .....	1	4	1	0	0	6
<b>Total Imports</b> .....	<b>56,396</b>	<b>21,277</b>	<b>44,998</b>	<b>1,455</b>	<b>7,219</b>	<b>131,345</b>

<sup>1</sup> Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

<sup>2</sup> Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, February 1982  
(Thousands of Barrels)

Source	Crude Oil 1	LPG and Ethane	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
All PAD Districts														
<b>Arab OPEC</b>														
Algeria .....	2,128	0	0	0	0	0	0	0	1,755	0	0	1,755	3,883	139
Iraq .....	974	0	0	0	0	0	0	0	0	0	0	0	974	35
Libya .....	2,583	0	0	0	0	0	0	0	0	0	0	0	2,583	92
Qatar .....	184	0	0	0	0	0	0	0	0	0	0	0	184	7
Saudi Arabia .....	19,184	206	0	0	0	0	0	0	0	0	(s)	206	19,389	692
United Arab Emirates .....	2,222	0	0	0	0	0	0	0	0	0	0	0	2,222	79
Subtotal Arab OPEC .....	27,276	206	0	0	0	0	0	0	1,755	0	(s)	1,961	29,236	1,044
<b>Other OPEC</b>														
Ecuador .....	0	0	0	0	0	0	0	0	434	0	0	434	434	15
Gabon .....	1,254	0	0	0	0	0	0	0	0	0	0	0	1,254	45
Indonesia .....	4,650	487	0	0	113	0	0	526	835	0	0	1,960	6,611	236
Nigeria .....	16,219	0	0	0	0	0	0	0	0	0	0	0	16,219	579
Venezuela .....	2,479	0	362	0	0	393	0	474	5,952	0	57	7,239	9,719	347
Subtotal Other OPEC .....	24,602	487	362	0	113	393	0	1,000	7,221	0	57	9,633	34,235	1,223
<b>Other</b>														
Angola .....	1,126	0	0	0	0	0	0	0	0	0	0	0	1,126	40
Australia .....	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
Bahamas .....	0	0	248	0	0	242	0	0	917	0	0	1,408	1,408	50
Brazil .....	380	0	0	0	0	0	0	0	1,038	0	7	1,045	1,426	51
Brunei .....	0	0	0	0	0	0	0	12	28	0	0	40	40	1
Canada .....	5,401	6,897	50	596	105	0	0	536	1,114	54	172	9,524	14,924	533
Congo .....	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
Egypt .....	2,995	0	0	0	0	0	0	0	0	0	(s)	0	2,995	107
France .....	0	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Ghana .....	0	0	0	0	0	0	0	0	146	0	0	146	146	5
Malaysia .....	474	0	0	0	0	0	0	0	0	0	0	0	474	17
Mexico .....	11,113	480	0	0	(s)	0	(s)	15	2,080	0	9	2,584	13,697	489
Netherlands .....	65	0	490	55	256	330	0	0	0	8	(s)	326	326	12
Netherlands Antilles .....	0	0	0	0	0	0	0	0	5,098	0	0	6,174	6,174	221
Norway .....	573	0	0	0	0	0	0	0	0	0	0	0	573	20
People's Republic of China .....	0	0	0	0	405	0	0	0	0	0	0	405	405	14
Peru .....	391	0	0	0	271	0	0	225	313	0	0	313	704	25
Puerto Rico .....	0	0	203	0	225	0	0	0	0	0	362	1,061	1,061	38
Romania .....	0	0	0	0	225	0	0	0	0	0	0	225	225	8
Trinidad and Tobago .....	2,805	0	0	0	0	147	0	0	376	14	15	552	3,357	120
Tunisia .....	2	0	0	0	0	0	0	0	0	0	0	0	2	(s)
United Kingdom .....	3,025	(s)	663	0	1,233	0	0	0	0	0	(s)	663	3,688	132
Virgin Islands .....	0	0	1,203	0	0	437	218	1,855	4,894	75	0	9,916	9,916	354
Zaire .....	825	0	0	0	0	0	0	0	0	0	0	0	825	29
Other Western Hemisphere .....	135	0	63	62	0	0	0	0	957	37	0	1,118	1,254	45
Other Eastern Hemisphere .....	1,456	(s)	155	190	1,121	0	0	0	40	50	112	1,669	3,125	112
Subtotal Other .....	30,703	7,442	3,074	903	3,616	1,355	218	2,643	17,001	238	679	37,170	67,873	2,424
<b>Total Imports .....</b>	<b>82,581</b>	<b>8,135</b>	<b>3,436</b>	<b>903</b>	<b>3,729</b>	<b>1,749</b>	<b>218</b>	<b>3,643</b>	<b>25,977</b>	<b>238</b>	<b>736</b>	<b>48,764</b>	<b>131,345</b>	<b>4,691</b>

See footnotes at end of table.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, February 1982  
(Thousands of Barrels)  
(continued)

Source	Crude Oil 1	LPG and Ethane	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District I														
<b>Arab OPEC</b>														
Algeria .....	1,310	0	0	0	0	0	0	0	1,755	0	0	1,755	3,065	109
Iraq .....	80	0	0	0	0	0	0	0	0	0	0	0	80	3
Libya .....	471	0	0	0	0	0	0	0	0	0	0	0	471	17
Saudi Arabia .....	4,881	206	0	0	0	0	0	0	0	0	(s)	206	5,087	182
United Arab Emirates .....	180	0	0	0	0	0	0	0	0	0	0	0	180	6
Subtotal Arab OPEC .....	6,922	206	0	0	0	0	0	0	1,755	0	(s)	1,961	8,883	317
<b>Other OPEC</b>														
Ecuador .....	0	0	0	0	0	0	0	0	434	0	0	434	434	15
Gabon .....	285	0	0	0	0	0	0	0	0	0	0	0	285	10
Indonesia .....	1,569	0	0	0	0	0	0	0	192	0	0	192	1,762	63
Nigeria .....	7,989	0	0	0	0	0	0	0	0	0	0	0	7,989	285
Venezuela .....	1,640	0	273	0	0	393	0	474	5,321	0	57	6,519	8,159	291
Subtotal Other OPEC .....	11,484	0	273	0	0	393	0	474	5,947	0	57	7,145	18,629	665
<b>Other</b>														
Angola .....	440	0	0	0	0	0	0	0	0	0	0	0	440	16
Australia .....	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
Bahamas .....	0	0	0	0	0	217	0	0	917	0	0	1,134	1,134	41
Brazil .....	380	0	0	0	0	0	0	0	1,038	0	0	1,038	1,418	51
Canada .....	(s)	311	1	0	104	0	0	536	347	9	5	1,313	1,313	47
Congo .....	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
Egypt .....	434	0	0	0	0	0	0	0	0	0	0	0	434	15
France .....	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Ghana .....	0	0	0	0	0	0	0	0	146	0	0	146	146	5
Mexico .....	2,135	0	0	0	0	0	0	0	594	0	0	594	2,728	97
Netherlands .....	0	65	0	0	0	199	0	0	0	0	(s)	263	263	9
Netherlands Antilles .....	0	0	246	0	256	330	0	0	4,788	0	0	5,620	5,620	201
Norway .....	573	0	0	0	0	0	0	0	0	0	0	0	573	20
Peru .....	391	0	0	0	0	0	0	0	311	0	0	311	702	25
Puerto Rico .....	0	0	203	0	271	0	0	225	0	0	272	971	971	35
Trinidad and Tobago .....	464	0	0	0	0	147	0	0	376	14	0	537	1,001	36
Tunisia .....	2	0	0	0	0	0	0	0	0	0	0	0	2	(s)
United Kingdom .....	460	(s)	0	0	0	0	0	0	0	0	(s)	(s)	460	16
Virgin Islands .....	0	0	0	0	1,233	437	218	1,855	4,859	0	0	8,602	8,602	307
Zaire .....	825	0	0	0	0	0	0	0	0	0	0	0	825	29
Other Western Hemisphere .....	0	0	0	0	0	0	0	0	957	0	0	957	957	34
Hemisphere .....	0	(s)	0	0	1,089	0	0	0	0	0	12	1,292	1,292	46
Other Eastern Hemisphere .....	6,104	375	450	190	2,954	1,330	218	2,616	14,332	23	290	22,779	28,884	1,032
Subtotal Other .....	24,511	581	724	190	2,954	1,723	218	3,090	22,034	23	347	31,885	56,396	2,014
<b>Total Imports .....</b>	<b>24,511</b>	<b>581</b>	<b>724</b>	<b>190</b>	<b>2,954</b>	<b>1,723</b>	<b>218</b>	<b>3,090</b>	<b>22,034</b>	<b>23</b>	<b>347</b>	<b>31,885</b>	<b>56,396</b>	<b>2,014</b>

See footnotes at end of table.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, February 1982  
(Thousands of Barrels)  
(continued)

Source	Crude Oil 1	LPG and Ethane	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
PAD District II														
<b>Arab OPEC</b>														
Algeria .....	818	0	0	0	0	0	0	0	0	0	0	0	818	29
Iraq .....	894	0	0	0	0	0	0	0	0	0	0	0	894	32
Libya .....	1,121	0	0	0	0	0	0	0	0	0	0	0	1,121	40
Qatar .....	184	0	0	0	0	0	0	0	0	0	0	0	184	7
Saudi Arabia .....	1,324	0	0	0	0	0	0	0	0	0	0	0	1,324	47
United Arab Emirates .....	580	0	0	0	0	0	0	0	0	0	0	0	580	21
Subtotal Arab OPEC .....	4,922	0	0	0	0	0	0	0	0	0	0	0	4,922	176
<b>Other OPEC</b>														
Nigeria .....	1,029	0	0	0	0	0	0	0	0	0	0	0	1,029	37
Subtotal Other OPEC .....	1,029	0	0	0	0	0	0	0	0	0	0	0	1,029	37
<b>Other</b>														
Canada .....	4,235	5,497	48	391	(s)	0	0	0	729	31	9	6,706	10,941	391
France .....	0	0	0	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Mexico .....	944	0	0	0	0	0	0	0	0	0	0	0	944	34
Trinidad and Tobago .....	479	0	0	0	0	0	0	0	0	0	0	0	479	17
United Kingdom .....	1,351	0	0	0	0	0	0	0	0	0	(s)	(s)	1,351	48
Other Eastern Hemisphere .....	1,456	0	155	0	0	0	0	0	0	0	0	155	1,611	58
Subtotal Other .....	8,465	5,497	203	391	(s)	0	0	0	729	31	9	6,860	15,326	547
<b>Total Imports .....</b>	<b>14,417</b>	<b>5,497</b>	<b>203</b>	<b>391</b>	<b>(s)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>729</b>	<b>31</b>	<b>9</b>	<b>6,860</b>	<b>21,277</b>	<b>760</b>
PAD District III														
<b>Arab OPEC</b>														
Libya .....	992	0	0	0	0	0	0	0	0	0	0	0	992	35
Saudi Arabia .....	12,459	0	0	0	0	0	0	0	0	0	0	0	12,459	445
United Arab Emirates .....	1,462	0	0	0	0	0	0	0	0	0	0	0	1,462	52
Subtotal Arab OPEC .....	14,913	0	0	0	0	0	0	0	0	0	0	0	14,913	533
<b>Other OPEC</b>														
Gabon .....	968	0	0	0	0	0	0	0	0	0	0	0	968	35
Indonesia .....	282	487	0	0	0	0	0	487	0	0	0	974	1,255	45
Nigeria .....	6,653	0	0	0	0	0	0	0	0	0	0	0	6,653	238
Venezuela .....	839	0	89	0	0	0	0	0	631	0	0	720	1,560	56
Subtotal Other OPEC .....	8,743	487	89	0	0	0	0	487	631	0	0	1,694	10,437	373
<b>Other</b>														
Angola .....	686	0	0	0	0	0	0	0	0	0	0	0	686	25
Bahamas .....	0	0	248	0	0	0	0	0	0	0	0	248	248	9
Brazil .....	0	0	0	0	0	0	0	0	0	0	7	7	7	(s)
Canada .....	0	0	0	84	0	0	0	0	0	0	0	84	84	3
Egypt .....	2,562	0	0	0	0	0	0	0	0	0	0	0	2,562	91
France .....	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)	(s)
Malaysia .....	23	0	0	0	0	0	0	0	0	0	0	0	23	1
Mexico .....	8,035	480	0	0	(s)	0	0	1	1,070	0	7	1,559	9,593	343
Netherlands .....	0	0	0	55	0	0	0	0	0	8	0	63	63	2
Netherlands Antilles .....	0	0	244	0	0	0	0	0	310	0	0	554	554	20

See footnotes at end of table.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, February 1982  
(Thousands of Barrels)  
(continued)

Source	Crude Oil 1	LPG and Ethane	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District III														
<b>Other</b>														
Puerto Rico .....	0	0	0	0	0	0	0	0	0	0	90	90	90	3
Romania .....	0	0	0	0	225	0	0	0	0	0	0	225	225	8
Trinidad and Tobago .....	1,861	0	0	0	0	0	0	0	0	0	15	15	1,876	67
United Kingdom .....	1,215	0	663	0	0	0	0	0	0	0	0	663	1,877	67
Virgin Islands .....	0	0	1,203	0	0	0	0	0	35	75	0	1,313	1,313	47
Other Western Hemisphere .....	135	0	63	62	0	0	0	0	0	37	0	162	297	11
Other Eastern Hemisphere .....	0	0	0	0	0	0	0	0	0	50	100	150	150	5
Subtotal Other .....	14,516	480	2,421	200	225	0	0	1	1,415	170	220	5,132	19,648	702
<b>Total Imports</b> .....	38,172	967	2,510	200	225	0	0	488	2,047	170	220	6,826	44,998	1,607
PAD District IV														
<b>Other</b>														
Canada .....	636	661	0	49	0	0	0	(s)	0	0	108	819	1,455	52
Subtotal Other .....	636	661	0	49	0	0	0	(s)	0	0	108	819	1,455	52
<b>Total Imports</b> .....	636	661	0	49	0	0	0	(s)	0	0	108	819	1,455	52
PAD District V														
<b>Arab OPEC</b>														
Saudi Arabia .....	519	0	0	0	0	0	0	0	0	0	0	0	519	19
Subtotal Arab OPEC .....	519	0	0	0	0	0	0	0	0	0	0	0	519	19
<b>Other OPEC</b>														
Indonesia .....	2,799	0	0	0	113	0	0	39	643	0	0	794	3,593	128
Nigeria .....	546	0	0	0	0	0	0	0	0	0	0	0	546	20
Subtotal Other OPEC .....	3,345	0	0	0	113	0	0	39	643	0	0	794	4,140	148
<b>Other</b>														
Bahamas .....	0	0	0	0	0	26	0	0	0	0	0	26	26	1
Brunei .....	0	0	0	0	0	0	0	12	28	0	0	40	40	1
Canada .....	529	428	0	72	0	0	0	(s)	39	14	51	603	1,132	40
Malaysia .....	452	0	0	0	0	0	0	0	0	0	0	0	452	16
Mexico .....	0	0	0	0	(s)	0	(s)	14	416	0	2	432	432	15
People's Republic of China .....	0	0	0	0	405	0	0	0	0	0	0	405	405	14
Peru .....	0	0	0	0	0	0	0	0	2	0	0	2	2	(s)
Virgin Islands .....	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Other Eastern Hemisphere .....	0	0	0	0	32	0	0	0	40	0	(s)	72	72	3
Subtotal Other .....	981	428	0	72	437	26	(s)	26	525	14	53	1,580	2,561	91
<b>Total Imports</b> .....	4,845	428	0	72	550	26	(s)	65	1,167	14	53	2,374	7,219	258

1 Includes crude oil imported for storage in the Strategic Petroleum Reserve.

2 Includes aviation gasoline, waxes, asphalt, lubricants, natural gasoline, isopentane, plant condensate, naphthas less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 22. Exports of Crude Oil and Petroleum Products by PAD District, February 1982  
(Thousands of Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) <sup>1</sup> .....	0	1,114	0	0	7,407	8,521
Liquefied Petroleum Gases and Ethane .....	36	404	831	0	148	1,420
Ethane .....	(s)	0	0	0	0	(s)
Propane .....	16	164	316	0	59	555
Butane .....	20	240	516	0	89	864
Butane-Propane Mixtures .....	0	0	0	0	0	0
Finished Motor Gasoline .....	1	0	0	0	221	222
Naphtha-Type Jet Fuel .....	(s)	0	0	0	0	(s)
Kerosene-Type Jet Fuel .....	0	0	226	0	19	245
Kerosene .....	(s)	0	0	0	1	1
Distillate Fuel Oil .....	7	0	945	0	1,560	2,511
Residual Fuel Oil .....	356	0	2,912	0	2,705	5,972
Naphtha < 400 Deg. for Petrochem. Feedstock .....	42	3	40	(s)	5	90
Other Oils > 400 Deg. for Petrochem. Feedstock .....	1	0	168	0	2	171
Special Naphthas .....	2	(s)	235	0	3	240
Lubricants .....	71	10	200	(s)	54	335
Wax .....	4	1	8	0	3	16
Petroleum Coke .....	59	57	882	0	1,728	2,725
Asphalt .....	4	1	(s)	(s)	2	8
Miscellaneous Products .....	14	1	11	0	4	30
Total Product Exports .....	596	477	6,458	1	6,454	13,986
Total Exports .....	596	1,591	6,458	1	13,861	22,507

<sup>1</sup> Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange on a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 23. Exports of Crude Oil and Petroleum Products by Destination, February 1982  
(Thousands of Barrels)

Destination	Crude Oil 1	LPG and Ethane	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Wax	Petroleum Coke	Asphalt	Other	Total	Total (Daily Average)
Argentina	0	(s)	0	0	0	0	(s)	(s)	(s)	0	(s)	(s)	1	(s)
Australia	0	(s)	0	0	212	0	(s)	1	(s)	193	(s)	3	411	15
Bahamas	0	1	0	(s)	0	578	(s)	3	0	0	0	(s)	582	21
Bahrain	0	0	0	0	0	0	(s)	0	0	79	0	(s)	79	3
Belgium & Luxembourg	0	1	0	0	0	0	(s)	10	(s)	0	(s)	1	16	1
Brazil	0	36	0	0	0	0	(s)	0	0	2	0	(s)	38	1
Cameroon	0	0	0	0	0	0	(s)	0	0	0	0	0	(s)	(s)
Canada	1,114	406	(s)	0	0	619	1	39	3	111	1	17	2,312	83
Chile	0	1	0	0	0	0	(s)	1	(s)	(s)	0	(s)	2	(s)
China (Taiwan)	0	(s)	0	0	0	261	(s)	11	(s)	(s)	(s)	1	274	10
Colombia	0	(s)	0	0	0	0	(s)	3	(s)	0	0	1	4	(s)
Costa Rica	0	(s)	0	0	0	0	(s)	2	(s)	0	0	(s)	3	(s)
Denmark	0	1	0	0	0	0	(s)	1	(s)	0	0	0	1	(s)
Dominican Republic	0	0	0	0	0	0	(s)	1	(s)	0	0	1	2	(s)
Ecuador	0	0	0	0	156	0	(s)	(s)	(s)	0	0	1	157	6
Egypt	0	0	0	226	0	0	(s)	(s)	0	0	0	(s)	227	8
El Salvador	0	0	0	0	0	0	1	2	(s)	0	0	(s)	3	(s)
Finland	0	0	0	0	0	0	(s)	(s)	0	0	0	1	2	(s)
France	0	77	0	0	0	0	(s)	1	(s)	152	(s)	3	234	8
French Pacific Isl	0	0	0	0	0	0	(s)	1	0	0	0	(s)	1	(s)
Ghana	0	0	0	0	0	0	(s)	(s)	0	0	0	(s)	(s)	(s)
Greece	0	0	0	0	224	0	(s)	1	(s)	0	0	(s)	230	(s)
Guatemala	0	0	0	0	128	0	(s)	3	(s)	0	0	(s)	131	(s)
Guinea	0	0	0	0	0	0	(s)	1	(s)	0	0	(s)	1	(s)
Honduras	0	0	0	0	0	0	(s)	8	(s)	(s)	0	1	9	(s)
Hong Kong	0	3	0	0	0	0	(s)	1	(s)	0	0	2	7	(s)
India	0	(s)	0	0	0	0	(s)	11	(s)	28	(s)	(s)	39	(s)
Indonesia	0	1	0	0	0	0	(s)	33	(s)	0	(s)	1	35	(s)
Iran	0	0	0	0	0	0	(s)	(s)	0	0	0	0	(s)	(s)
Israel	0	1	0	0	0	0	(s)	1	(s)	0	0	(s)	2	(s)
Italy	0	(s)	0	0	224	0	(s)	(s)	(s)	54	(s)	93	371	13
Ivory Coast	0	0	0	0	0	0	(s)	(s)	0	0	0	(s)	1	(s)
Jamaica	0	(s)	0	0	0	0	(s)	(s)	0	0	0	(s)	(s)	(s)
Japan	0	3	0	0	942	754	8	6	3	752	0	16	2,484	89
Jordan	0	0	0	0	1	0	(s)	1	0	0	(s)	0	2	(s)
Korea, Republic of	0	0	0	0	0	317	1	1	(s)	124	(s)	1	444	16
Kuwait	0	5	0	0	0	0	(s)	2	0	0	0	0	7	(s)
Lebanon	0	0	0	0	0	0	(s)	2	0	0	0	0	2	(s)
Liberia	0	0	0	0	0	0	(s)	0	0	0	0	0	0	(s)
Malaysia	0	0	0	0	0	0	(s)	1	(s)	0	0	0	(s)	(s)
Mexico	0	806	221	19	0	0	5	40	2	52	1	6	1,152	41
Netherlands	0	(s)	0	0	178	2,202	7	5	(s)	229	0	37	2,657	95
Netherlands Antilles	0	1	0	0	0	0	(s)	1	0	0	0	(s)	2	(s)
New Zealand	0	0	0	0	0	0	(s)	2	(s)	97	0	3	111	4
Nicaragua	0	0	0	0	0	0	(s)	3	0	0	(s)	1	4	(s)
Nigeria	0	(s)	0	0	0	0	(s)	1	0	0	0	(s)	1	(s)
Norway	0	0	0	0	0	0	(s)	0	0	115	0	0	116	4
Pacific Trust Terr.	0	0	0	0	0	0	(s)	0	0	0	0	0	0	(s)
Panama	0	1	0	0	186	0	(s)	1	(s)	0	0	(s)	189	7
Peru	0	(s)	0	0	0	0	(s)	1	(s)	0	0	(s)	1	(s)
Philippines	0	0	0	0	0	0	1	5	(s)	0	0	1	7	(s)

See footnotes at end of table.

Table 23. Exports of Crude Oil and Petroleum Products by Destination, February 1982  
(Thousands of Barrels)

Destination	Crude Oil 1	LPG and Ethane	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Wax	Petroleum Coke	Asphalt	Other	Total	Total (Daily Average)
Puerto Rico .....	2,633	25	0	0	0	111	197	10	1	93	0	5	3,075	110
Rep. of South Africa .....	0	1	0	0	0	0	0	3	3	0	2	1	10	(s)
Saudi Arabia .....	0	(s)	0	0	0	0	(s)	12	0	0	0	3	15	1
Singapore .....	0	2	0	0	219	733	4	2	(s)	0	0	1	960	34
Spain .....	0	0	0	0	0	0	0	(s)	(s)	127	0	1	129	5
Surinam .....	0	0	0	0	0	0	0	1	0	20	0	(s)	21	1
Sweden .....	0	(s)	0	0	0	0	0	9	(s)	0	0	1	10	(s)
Switzerland .....	0	(s)	0	0	0	0	(s)	2	(s)	0	(s)	(s)	1	(s)
Thailand .....	0	0	0	0	0	0	1	1	(s)	0	(s)	(s)	3	(s)
Trinidad and Tobago .....	0	(s)	0	0	0	0	0	0	1	0	(s)	(s)	2	(s)
Turkey .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0
United Arab Emirates .....	0	0	0	0	0	0	(s)	2	0	0	0	(s)	2	(s)
United Kingdom .....	0	1	(s)	0	(s)	219	(s)	4	(s)	88	(s)	3	317	11
U.S.S.R. ....	0	0	0	0	0	0	0	50	0	221	0	0	271	10
Uruguay .....	0	0	0	0	0	0	(s)	2	0	0	0	(s)	2	(s)
Venezuela .....	0	12	0	0	0	0	(s)	(s)	(s)	125	(s)	3	141	5
Virgin Islands .....	4,774	0	0	0	0	0	0	(s)	0	0	0	0	4,774	171
West Germany .....	0	(s)	0	0	0	0	0	16	1	28	0	72	116	4
Yugoslavia .....	0	0	0	0	0	0	0	0	0	33	0	0	33	1
Other .....	0	35	0	0	41	179	(s)	10	(s)	0	1	3	269	10
Total .....	8,521	1,420	222	245	2,511	5,972	240	335	16	2,725	8	291	22,507	804

1 Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange, on a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

(s) Less than 500 barrels or less than 500 barrels per day.  
Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, February 28, 1982  
(Thousands of Barrels)

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States				
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas		La. Gulf Coast	No. La., Ark.	New Mexico		Total	Rocky Mt.	PAD	
									Inland	Gulf Coast							Dist. IV	Dist. V
Crude Oil (incl lease condensate) <sup>1</sup>																		
Refinery	--	--	16,586	--	--	--	--	17,068	--	--	--	--	--	50,255	2,819	24,500	111,228	
Tank Farms and Pipelines	--	--	2,810	--	--	--	--	62,802	--	--	--	--	--	98,955	11,537	33,416	209,520	
Leases	--	--	61	--	--	--	--	1,658	--	--	--	--	--	17,053	1,410	1,677	21,859	
Strategic Petroleum Reserve <sup>2</sup>	--	--	0	--	--	--	--	0	--	--	--	--	--	241,241	0	0	241,241	
Alaskan In-Transit	--	--	0	--	--	--	--	0	--	--	--	--	--	0	0	28,363	28,363	
Total	--	--	19,457	--	--	--	--	81,528	--	--	--	--	--	407,504	15,766	87,956	612,211	
Petroleum Products																		
Refinery	40,793	4,586	45,379	854	45,439	7,611	25,652	79,556	12,184	76,844	47,408	5,351	1,997	143,784	17,312	70,084	356,115	
Bulk Terminal	113,998	8,195	122,193	4,645	43,544	10,663	14,831	73,683	5,271	33,127	7,446	4,359	630	50,833	2,939	27,058	276,706	
Pipeline	25,997	1,738	27,735	1,640	13,115	2,896	17,138	34,789	7,936	8,907	6,774	13,950	1,107	38,674	2,921	4,458	108,577	
Natural Gas Processing Plant	317	350	667	0	2,269	153	19,937	22,359	5,845	31,492	11,694	3,737	1,177	53,946	310	521	77,804	
Total	181,105	14,869	195,974	7,139	104,367	21,323	77,558	210,387	31,236	150,370	73,322	27,397	4,911	287,237	23,482	102,121	819,202	
Natural Gasoline and Isopentane																		
Refinery	4	1	5	0	17	144	110	271	112	795	265	1	25	1,198	59	18	1,551	
Pipeline	0	0	0	0	12	1	203	216	217	65	0	75	56	413	165	5	799	
Natural Gas Processing Plant	4	23	27	0	32	14	1,480	1,525	507	6,399	483	19	54	7,462	48	16	9,079	
Total	8	24	32	0	61	159	1,793	2,012	836	7,259	748	95	135	9,073	272	39	11,429	
Unfractionated Stream																		
Refinery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pipeline	0	0	0	0	78	0	15	93	0	28	28	0	0	56	0	0	149	
Natural Gas Processing Plant	0	0	0	0	98	2	1,720	1,820	287	1,800	269	1	196	2,553	26	2	4,401	
Total	0	0	0	0	176	2	1,735	1,913	287	1,828	297	1	196	2,609	26	2	4,550	
Plant Condensate																		
Refinery	0	0	0	0	6	0	0	6	15	118	0	88	0	221	0	0	227	
Pipeline	0	0	0	0	0	0	0	0	824	274	49	10	17	1,174	0	0	1,174	
Natural Gas Processing Plant	0	0	0	0	2	0	5	7	20	53	13	10	1	96	2	0	105	
Total	0	0	0	0	8	0	5	13	859	445	62	108	18	1,491	2	0	1,506	
Ethane																		
Refinery	0	0	0	0	8	0	0	8	0	511	0	0	0	511	0	0	519	
Bulk Terminal	0	0	0	0	81	0	40	121	0	1,216	0	0	0	1,216	0	0	1,337	
Pipeline	919	0	919	0	30	0	138	168	236	79	126	0	3	444	0	0	1,531	
Natural Gas Processing Plant	0	0	0	0	24	0	387	411	333	967	482	2	0	1,783	(s)	0	2,195	
Total	919	0	919	0	143	0	565	708	569	2,773	608	2	3	3,954	(s)	0	5,582	
Propane for Petrochemical Feedstock Use																		
Refinery	72	0	72	0	75	0	7	82	0	4	9	0	0	13	1	0	168	
Total	72	0	72	0	75	0	7	82	0	4	9	0	0	13	1	0	168	
Propane for Other Uses																		
Refinery	286	8	294	1	713	17	272	1,003	315	953	787	6	6	2,067	62	183	3,609	
Bulk Terminal	164	0	164	0	969	110	506	1,585	141	13,414	0	55	0	13,610	43	0	15,402	
Pipeline	949	438	1,387	62	1,659	126	1,829	3,676	552	411	249	794	142	2,148	112	0	7,323	
Natural Gas Processing Plant	241	321	562	0	1,945	128	11,173	13,245	3,085	7,510	6,228	3,416	333	20,572	179	241	34,799	
Total	1,640	767	2,407	63	5,286	381	13,780	19,509	4,093	22,288	7,264	4,271	481	38,397	395	424	61,133	

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, February 28, 1982  
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States			
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La. Ark.	New Mexico		Total	Rocky Mt.	Dist. V West Coast
<b>Butane for Petro. Feed. Use</b>																	
Refinery .....	0	0	0	0	0	18	0	18	0	17	0	2	0	19	1	3	41
Total .....	0	0	0	0	0	18	0	18	0	17	0	2	0	19	1	3	41
<b>Butane for Other Uses</b>																	
Refinery .....	123	5	128	19	308	61	260	648	142	461	872	2	6	1,483	187	540	2,986
Bulk Terminal .....	63	0	63	0	337	0	122	459	82	3,172	0	0	0	3,254	0	0	3,776
Pipeline .....	24	117	141	0	1,086	29	275	1,390	1,069	18	5	100	58	1,250	55	0	2,836
Natural Gas Processing Plant .....	50	3	53	0	75	9	1,700	1,784	685	4,795	3,047	202	59	8,788	48	80	10,752
Total .....	260	125	385	19	1,806	99	2,357	4,281	1,978	8,446	3,924	304	123	14,775	290	620	20,350
<b>Butane-Propane Mixtures for Petro. Feed. Use</b>																	
Refinery .....	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1
Total .....	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1
<b>Butane-Propane Mixtures for Other Uses</b>																	
Refinery .....	0	0	0	0	3	0	0	3	0	6	6	1	5	18	6	134	161
Bulk Terminal .....	0	0	0	0	9	0	1	10	0	0	0	0	0	0	0	0	10
Pipeline .....	0	0	0	0	0	0	19	19	644	26	10	0	1	681	0	0	700
Natural Gas Processing Plant .....	0	0	0	0	1	0	51	52	87	130	0	1	0	217	0	4	274
Total .....	0	0	0	0	13	0	71	84	731	162	16	2	6	916	6	138	1,145
<b>Ethane-Propane Mixtures</b>																	
Refinery .....	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1
Bulk Terminal .....	0	0	0	0	0	0	3	3	450	4,080	0	0	0	4,530	0	0	4,533
Pipeline .....	0	0	0	0	66	0	491	557	757	84	2	0	144	987	181	0	1,725
Natural Gas Processing Plant .....	0	0	0	0	0	0	2,396	2,396	339	7,441	0	(s)	445	8,224	0	0	10,620
Total .....	0	0	0	0	66	0	2,890	2,956	1,546	11,606	2	(s)	589	13,742	181	0	16,879
<b>Isobutane</b>																	
Refinery .....	10	2	12	42	168	16	154	380	118	151	401	12	5	687	56	49	1,184
Bulk Terminal .....	0	0	0	0	54	0	65	119	118	1,198	0	0	0	1,316	0	0	1,435
Pipeline .....	0	0	0	0	373	14	162	549	193	9	0	100	43	345	43	0	937
Natural Gas Processing Plant .....	2	2	5	0	91	1	1,024	1,116	247	1,793	1,172	47	89	3,347	1	179	4,648
Total .....	12	4	17	42	686	31	1,405	2,164	676	3,151	1,573	159	137	5,695	100	228	8,204
<b>Other Hydrocarbons and Alcohol</b>																	
Refinery .....	0	8	8	0	75	0	1	76	10	70	8	0	0	88	1	2	175
Total .....	0	8	8	0	75	0	1	76	10	70	8	0	0	88	1	2	175
<b>Unfinished Oils</b>																	
Refinery .....	2,896	494	3,390	45	2,489	162	1,365	4,061	1,334	7,153	5,198	349	165	14,199	521	5,181	27,352
Naphtha and Lighter .....	1,180	20	1,200	0	2,505	4	1,092	3,601	150	6,252	1,176	44	2	7,624	656	3,590	16,671
Kerosene and Lighter Gas Oils .....	7,508	515	8,023	131	4,417	208	2,977	7,733	1,233	12,083	8,803	363	20	22,502	1,380	11,674	51,312
Heavy Gas Oils .....	1,740	261	2,001	2	3,867	21	2,010	5,900	320	3,713	3,079	54	6	7,172	603	5,911	21,587
Residuum .....	13,324	1,290	14,614	178	13,278	395	7,444	21,295	3,037	29,201	18,256	810	193	51,497	3,160	26,356	116,922
Total .....																	

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, February 28, 1982  
(Thousands of Barrels) (continued)

Commodity	PAD District I				PAD District II				PAD District III				PAD		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Dist. IV Rocky Mt.	Dist. V West Coast
Motor Gasoline Blending Components																	
Refinery .....	5,309	243	5,552	21	7,285	978	2,807	11,091	2,331	8,822	6,174	134	301	17,762	3,467	9,292	47,164
Bulk Terminal .....	300	1	301	5	121	1	222	349	84	28	0	1	0	113	8	582	1,353
Pipeline .....	0	0	0	0	16	1	233	250	0	0	0	0	0	0	0	0	250
Total .....	5,609	244	5,853	26	7,422	980	3,262	11,690	2,415	8,850	6,174	135	301	17,875	3,475	9,874	48,767
Aviation Gasoline Blending Components																	
Refinery .....	0	0	0	0	92	0	6	98	65	156	241	0	0	462	0	87	647
Total .....	0	0	0	0	92	0	6	98	65	156	241	0	0	462	0	87	647
Total Finished Motor Gasoline																	
Refinery .....	5,741	598	6,339	100	7,387	1,962	5,339	14,788	2,539	10,305	5,169	971	338	19,322	3,060	7,885	51,394
Bulk Terminal .....	38,559	4,052	42,611	2,372	22,025	4,646	6,787	35,830	2,781	5,098	1,634	2,803	428	12,744	1,809	14,012	107,006
Pipeline .....	13,970	791	14,761	992	6,960	1,528	7,262	16,742	1,934	5,176	4,119	7,904	162	19,295	1,563	2,542	54,903
Natural Gas Processing Plant .....	20	0	20	0	0	0	0	0	41	0	0	0	0	41	5	0	65
Total Finished Motor Gasoline .....	58,290	5,441	63,731	3,464	36,372	8,136	19,388	67,360	7,295	20,579	10,922	11,678	928	51,402	6,437	24,439	213,368
Finished Leaded Motor Gasoline																	
Refinery .....	2,308	349	2,657	78	3,681	1,008	3,044	7,811	1,387	4,707	2,746	849	215	9,904	1,991	3,821	26,184
Bulk Terminal .....	18,604	1,900	20,504	1,220	11,399	2,674	4,052	19,345	1,421	2,993	789	1,430	268	6,901	1,165	7,548	55,463
Pipeline .....	6,868	341	7,209	556	3,956	907	3,787	9,206	1,010	2,536	2,198	3,452	102	9,298	1,069	1,277	28,059
Natural Gas Processing Plant .....	20	0	20	0	0	0	0	0	31	0	0	0	0	31	3	0	54
Total .....	27,800	2,590	30,390	1,854	19,036	4,589	10,883	36,362	3,849	10,236	5,733	5,731	585	26,134	4,228	12,646	109,760
Finished Unleaded Motor Gasoline																	
Refinery .....	3,433	249	3,682	22	3,706	954	2,295	6,977	1,148	5,598	2,423	122	123	9,414	1,066	4,052	25,191
Bulk Terminal .....	19,940	2,152	22,092	1,152	10,592	1,972	2,728	16,444	1,355	2,105	845	1,373	160	5,838	644	6,484	51,482
Pipeline .....	7,102	450	7,552	436	3,004	619	3,475	7,534	924	2,640	1,921	4,452	60	9,997	494	1,265	26,842
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	10	0	0	0	0	10	1	0	11
Total .....	30,475	2,851	33,326	1,610	17,302	3,545	8,498	30,955	3,437	10,343	5,189	5,947	343	25,259	2,205	11,781	103,526
Gasohol																	
Refinery .....	0	0	0	0	0	0	0	0	4	0	0	0	0	4	3	12	19
Bulk Terminal .....	15	0	15	0	34	0	7	41	5	0	0	0	0	5	0	0	61
Pipeline .....	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total .....	15	0	15	0	34	2	7	43	9	0	0	0	0	9	3	12	82
Finished Aviation Gasoline																	
Refinery .....	32	0	32	0	170	0	65	235	17	415	204	0	0	636	51	239	1,193
Bulk Terminal .....	385	31	416	1	256	77	82	416	37	28	17	26	41	149	13	451	1,445
Pipeline .....	0	0	0	0	0	0	27	27	6	14	0	0	0	20	0	0	47
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	43	0	0	0	0	43	0	0	43
Total .....	417	31	448	1	426	77	174	678	103	457	221	26	41	848	64	690	2,728
Naphtha-Type Jet Fuel																	
Refinery .....	295	66	361	0	247	54	381	682	282	727	264	111	303	1,687	176	881	3,787
Bulk Terminal .....	11	0	11	3	58	15	138	214	120	256	0	48	0	424	16	93	758
Pipeline .....	341	0	341	3	10	18	140	171	43	0	26	135	319	523	101	346	1,482
Total .....	647	66	713	6	315	87	659	1,067	445	983	290	294	622	2,634	293	1,320	6,027

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, February 28, 1982  
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V West Coast
<b>Kerosene-Type Jet Fuel</b>																	
Refinery	694	9	703	50	1,159	49	269	1,527	398	2,031	2,175	12	37	4,653	199	4,061	11,143
Bulk Terminal	4,159	136	4,295	55	1,845	449	587	2,936	196	924	60	31	36	1,247	244	1,958	10,680
Pipeline	2,218	120	2,338	50	593	236	1,322	2,201	1,015	1,013	449	1,437	59	3,973	96	531	9,139
Total	7,071	265	7,336	155	3,597	734	2,178	6,664	1,609	3,968	2,684	1,480	132	9,873	539	6,550	30,962
<b>Kerosene</b>																	
Refinery	159	46	205	0	452	28	160	640	40	721	496	9	67	1,333	41	108	2,327
Bulk Terminal	3,091	275	3,366	124	653	78	14	869	10	310	33	27	0	380	34	48	4,697
Pipeline	710	14	724	123	128	0	336	587	34	166	256	284	0	740	0	0	2,051
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	2	0	0	(9)	1	4	0	0	4
Total	3,960	335	4,295	247	1,233	106	510	2,096	86	1,197	785	320	68	2,457	75	156	9,079
<b>Total Distillate Fuel Oils</b>																	
Refinery	6,186	623	6,809	55	6,164	1,295	4,625	12,139	1,099	7,216	5,097	1,056	372	14,840	2,530	6,494	42,812
Bulk Terminal	41,535	2,925	44,460	1,548	12,970	4,055	4,966	23,539	1,222	1,696	1,111	1,129	120	5,278	771	6,389	80,437
Pipeline	6,866	256	7,122	408	2,103	943	4,678	8,132	370	1,544	1,455	3,111	103	6,583	605	1,017	23,459
Natural Gas Processing Plant	0	0	0	0	0	0	1	1	1	0	(9)	0	0	2	0	0	3
Total Distillate Fuel Oil	54,587	3,804	58,391	2,011	21,237	6,293	14,270	43,811	2,692	10,456	7,663	5,296	595	26,703	3,906	13,900	146,711
<b>Dist. Fuel Oils Less No. 4 Fuel Oil</b>																	
Refinery	6,186	614	6,800	55	6,112	1,295	4,625	12,087	998	7,022	4,941	967	301	14,229	2,519	6,439	42,074
Bulk Terminal	39,695	2,925	42,620	1,538	12,867	4,055	4,966	23,426	1,222	1,690	1,081	1,128	120	5,241	771	6,370	78,428
Pipeline	6,866	256	7,122	408	2,103	943	4,678	8,132	370	1,544	1,455	3,111	103	6,583	605	1,017	23,459
Natural Gas Processing Plant	0	0	0	0	0	0	1	1	1	0	(9)	0	0	2	0	0	3
Total	52,747	3,795	56,542	2,001	21,082	6,293	14,270	43,646	2,591	10,256	7,477	5,206	524	26,055	3,895	13,826	143,964
<b>No. 4 Fuel Oil</b>																	
Refinery	0	9	9	0	52	0	0	52	101	194	156	89	71	611	11	55	738
Bulk Terminal	1,840	0	1,840	10	103	0	0	113	0	6	30	1	0	37	0	19	2,009
Total	1,840	9	1,849	10	155	0	0	165	101	200	186	90	71	648	11	74	2,747
<b>Residual Fuel Oils</b>																	
Refinery	3,299	134	3,433	31	2,478	406	739	3,654	289	4,636	2,975	277	65	8,242	669	8,678	24,676
Bulk Terminal	21,345	113	21,458	249	2,276	198	911	3,634	21	1,677	4,324	87	0	6,109	0	2,255	33,456
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	17
Total	24,644	247	24,891	280	4,754	604	1,650	7,288	310	6,313	7,299	364	65	14,351	669	10,950	58,149
<b>Naphtha &lt; 400 Deg. Petro. Feedstock</b>																	
Refinery	200	0	200	0	197	0	66	263	172	1,495	243	38	0	1,948	0	224	2,635
Total	200	0	200	0	197	0	66	263	172	1,495	243	38	0	1,948	0	224	2,635
<b>Other Oils &gt; 400 Deg. Petro. Feedstock</b>																	
Refinery	2	95	97	0	213	0	1	214	230	644	268	49	0	1,191	0	162	1,664
Total	2	95	97	0	213	0	1	214	230	644	268	49	0	1,191	0	162	1,664
<b>Special Naphthas</b>																	
Refinery	20	53	73	1	206	0	199	406	44	1,279	56	160	0	1,539	6	214	2,238
Bulk Terminal	964	8	972	77	160	24	100	361	0	0	0	8	0	8	0	49	1,390
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	110	0	0	0	0	110	0	0	110
Total	984	61	1,045	78	366	24	299	767	154	1,279	56	168	0	1,657	6	263	3,738

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, February 28, 1982  
(Thousands of Barrels) (continued)

Commodity	PAD District I		PAD District II					PAD District III				PAD District IV		United States			
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico		Total	Rocky Mt.	Dist. V West Coast
Lubricants																	
Refinery	196	451	647	0	75	0	124	199	0	238	113	0	0	351	9	43	1,249
Bright Stock	884	358	1,242	0	671	0	487	1,158	0	1,957	1,240	77	0	3,274	98	559	6,331
Neutral	652	130	782	0	176	0	95	271	30	2,250	301	158	1	2,740	12	97	3,902
Other	1,005	267	1,272	13	402	23	101	539	9	30	123	87	5	254	1	710	2,776
Bulk Terminals	2,737	1,206	3,943	13	1,324	23	807	2,167	39	4,475	1,777	322	6	6,619	120	1,409	14,258
Total																	
Wax, Microcrystalline																	
Refinery	0	26	26	0	0	0	18	18	23	23	9	0	0	55	0	0	99
Total	0	26	26	0	0	0	18	18	23	23	9	0	0	55	0	0	99
Wax, Crystalline--Fully Refined																	
Refinery	15	27	42	0	23	0	24	47	0	83	140	0	0	223	5	41	358
Total	15	27	42	0	23	0	24	47	0	83	140	0	0	223	5	41	358
Wax, Crystalline--Other																	
Refinery	3	59	62	0	2	0	7	9	0	114	0	0	0	114	0	21	206
Total	3	59	62	0	2	0	7	9	0	114	0	0	0	114	0	21	206
Petroleum Coke																	
Refinery	716	0	716	0	423	303	283	1,009	1	82	474	19	0	576	596	1,571	4,468
Total	716	0	716	0	423	303	283	1,009	1	82	474	19	0	576	596	1,571	4,468
Asphalt																	
Refinery	2,142	316	2,458	355	3,031	1,873	1,650	6,909	767	745	993	1,318	273	4,096	2,857	1,865	18,185
Bulk Terminal	2,395	387	2,782	198	1,309	982	183	2,672	0	0	144	28	0	172	0	485	6,111
Total	4,537	703	5,240	553	4,340	2,855	1,833	9,581	767	745	1,137	1,346	273	4,268	2,857	2,350	24,296
Road Oil																	
Refinery	0	0	0	0	5	0	6	11	0	0	0	2	0	2	3	2	18
Total	0	0	0	0	5	0	6	11	0	0	0	2	0	2	3	2	18
Miscellaneous Products																	
Refinery	429	38	467	1	332	12	53	398	107	617	172	38	0	934	0	275	2,074
Bulk Terminal	22	0	22	0	19	5	3	27	0	0	0	29	0	29	0	26	104
Pipeline	0	2	2	2	1	0	8	11	42	0	0	0	0	42	0	0	55
Natural Gas Processing Plant	0	0	0	0	1	0	(s)	2	59	606	(s)	38	(s)	704	2	0	707
Total	451	40	491	3	353	17	64	438	208	1,223	172	105	(s)	1,709	2	301	2,940
Total Stocks, All Oils																	
	--	--	215,431	--	--	--	--	291,915	--	--	--	--	--	694,741	39,248	190,077	1,431,413

1 Crude oil data are not collected by refinery district.  
2 Includes 31,442 thousands of barrels of domestic crude oil.  
(s) Less than 500 barrels.  
Note: Total may not equal sum of components due to independent rounding.  
Sources: See Explanatory Notes on Data Collection and Estimation.  
--- Not Applicable.

**Table 25. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, February 1982**  
(Thousands of Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	II	III	I	I	III	IV	I	II	IV	V	II	III	V	I	III
<b>Crude Oil</b> .....	0	0	0	22	0	0	0	284	1,004	0	0	0	0	2,261	14,303
<b>Petroleum Products</b> .....	6,291	435	2,905	5,139	2,216	77,508	18,962	0	1,761	649	263	0	797	27	40
Natural Gasoline and Isopentane .....	0	0	0	263	0	0	1,072	0	0	0	0	0	0	0	0
Unfractionated Stream .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant Condensate .....	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases .....	4	0	1,082	1,571	182	1,897	8,125	0	210	0	0	0	0	0	0
Unfinished Oils .....	21	0	0	0	0	909	718	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline .....	4,356	308	1,113	1,663	1,256	38,984	5,649	0	690	271	170	0	529	0	0
Finished Leaded Motor Gasoline .....	2,516	0	477	929	734	18,195	2,435	0	367	170	386	0	386	0	0
Finished Unleaded Motor Gasoline .....	1,840	308	636	734	515	20,789	3,207	0	323	101	143	0	143	0	0
Gasohol .....	0	0	0	0	7	0	7	0	0	0	0	0	0	0	0
Finished Aviation Gasoline .....	17	0	0	0	15	180	78	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel .....	141	0	0	110	0	832	0	0	124	0	0	0	91	0	0
Kerosene-Type Jet Fuel .....	195	0	42	73	556	7,123	1,397	0	134	8	0	0	26	0	0
Kerosene .....	180	0	3	0	0	1,242	112	0	0	0	0	0	0	0	0
Distillate Fuel Oil .....	1,339	0	271	595	207	19,033	1,232	0	441	107	151	0	151	0	0
Distillate Fuel Oil Less No. 4 .....	1,339	0	271	595	207	19,004	1,232	0	441	107	151	0	151	0	0
No. 4 Fuel Oil .....	0	0	0	0	0	29	0	0	0	0	0	0	0	0	0
Residual Fuel Oil .....	0	0	141	864	0	5,792	0	0	0	0	0	0	0	26	0
Naphtha and Other Oils for Petro. Feedstock .....	29	85	33	0	0	102	130	0	0	0	0	0	0	0	0
Special Naphthas .....	0	0	0	0	0	226	68	0	0	0	0	0	0	0	0
Lubricants .....	9	42	29	0	0	407	134	0	160	0	0	0	0	0	10
Wax .....	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil .....	0	0	0	0	0	143	57	0	0	0	0	0	0	0	0
Miscellaneous Products .....	0	0	191	0	0	632	79	0	2	0	0	0	0	1	30
<b>Total All Products</b> .....	6,291	435	2,927	5,139	2,216	77,792	19,966	0	1,761	649	263	0	797	2,288	14,343

Note: Total may not equal sum of components due to independent rounding.  
Sources: See Explanatory Notes on Data Collection and Estimation.

**Table 26. Movements of Petroleum Products by Pipeline Between PAD Districts, February 1982**  
(Thousands of Barrels)

Commodity	From I to	From II to				From III to				From IV to			
	II	I	III	IV	I	II	IV	V	II	III	V		
Natural Gasoline and Isopentane .....	0	0	263	0	0	1,072	0	0	0	263	0	0	
Unfractionated Stream .....	0	0	0	0	0	0	0	0	0	0	0	0	
Plant Condensate .....	0	0	0	0	0	12	0	0	0	0	0	0	
Liquefied Petroleum Gases .....	0	1,082	1,570	182	1,647	8,000	0	0	0	0	0	0	
Motor Gasoline Blending Components .....	0	0	0	0	0	718	0	0	0	0	0	0	
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0	0	
Finished Motor Gasoline .....	3,291	987	1,863	1,256	29,339	5,043	0	690	271	0	0	529	
Finished Leaded Motor Gasoline .....	1,966	395	929	734	14,110	2,208	0	367	170	0	0	386	
Finished Unleaded Motor Gasoline .....	1,325	592	734	515	15,229	2,828	0	323	101	0	0	143	
Gasohol .....	0	0	0	7	0	7	0	0	0	0	0	0	
Finished Aviation Gasoline .....	17	0	0	15	33	61	0	0	0	0	0	0	
Naphtha-Type Jet Fuel .....	0	0	110	0	233	0	0	124	0	0	0	91	
Kerosene-Type Jet Fuel .....	152	39	73	556	4,644	1,152	0	134	8	0	0	26	
Kerosene .....	32	0	0	0	932	96	0	0	0	0	0	0	
Distillate Fuel Oil .....	1,047	243	461	207	16,276	989	0	276	107	0	0	151	
Distillate Fuel Oil Less No. 4 .....	1,047	243	461	207	16,276	989	0	276	107	0	0	151	
No. 4 Fuel Oil .....	0	0	0	0	0	0	0	0	0	0	0	0	
Residual Fuel Oil .....	0	0	0	0	0	0	0	0	0	0	0	0	
Miscellaneous Products .....	0	191	0	0	0	54	0	0	0	0	0	0	
Total .....	4,539	2,542	4,140	2,216	53,104	17,197	0	1,224	649	0	0	797	

Note: Total may not equal sum of components due to independent rounding.  
Source: See Explanatory Notes on Data Collection and Estimation.

**Table 27. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, February 1982**  
(Thousands of Barrels)

Commodity	From I to		From II to			From III to				From V to			
	II	III	I	III	I	New Eng	Cent Atl	Low Atl	II	V	I	III	
Crude Oil .....	0	0	22	0	284	0	284	0	1,004	0	2,261	14,303	
Petroleum Products .....	1,752	435	363	999	24,404	2,488	4,609	17,307	1,765	537	27	40	
Liquefied Petroleum Gases .....	4	0	0	1	250	0	25	225	125	0	0	0	
Unfinished Oils .....	21	0	0	0	909	0	889	20	99	210	0	0	
Finished Motor Gasoline .....	1,065	308	126	0	9,645	64	410	9,171	606	0	0	0	
Finished Aviation Gasoline .....	0	0	0	0	147	31	52	64	17	0	0	0	
Naphtha-Type Jet Fuel .....	141	0	0	0	599	0	0	599	0	0	0	0	
Kerosene-Type Jet Fuel .....	43	0	3	0	2,479	268	228	1,983	245	0	0	0	
Kerosene .....	148	0	3	0	310	60	48	202	16	0	0	0	
Distillate Fuel Oil .....	292	0	28	134	2,757	195	632	1,930	243	165	0	0	
Residual Fuel Oil .....	0	0	141	864	5,792	1,829	1,329	2,634	0	0	26	0	
Naptha and Other Oils for Petro. Feed Use .....	29	85	33	0	102	0	22	80	130	0	0	0	
Special Naphthas .....	0	0	0	0	226	24	121	81	68	0	0	0	
Lubricants .....	9	42	29	0	407	5	294	108	134	160	0	10	
Wax .....	0	0	0	0	6	0	6	0	0	0	0	0	
Asphalt and Road Oil .....	0	0	0	0	143	0	0	143	57	0	0	0	
Miscellaneous Products .....	0	0	0	0	632	12	553	67	25	2	1	30	
Total .....	1,752	435	385	999	24,688	2,488	4,893	17,307	2,769	537	2,288	14,343	

Note: Total may not equal sum of components due to independent rounding.  
Source: See Explanatory Notes on Data Collection and Estimation.

Table 28. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker and Barge Between PAD Districts, February 1982  
(Thousands of Barrels)

Commodity	P.A.D. District I			P.A.D. District II			P.A.D. District III			P.A.D. District IV			P.A.D. District V		
	Receipts into PADD I	Shipments from PADD I	Net Receipts PADD I	Receipts into PADD II	Shipments from PADD II	Net Receipts PADD II	Receipts into PADD III	Shipments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Shipments from PADD IV	Net Receipts PADD IV	Receipts into PADD V	Shipments from PADD V	Net Receipts PADD V
<b>Crude Oil</b> .....	2,567	0	2,567	1,004	22	982	14,303	1,288	13,015	0	0	0	0	16,564	-16,564
<b>Petroleum Products</b> .....	80,440	6,726	73,714	25,903	10,260	15,643	5,614	98,231	-92,617	2,216	1,446	770	2,558	68	2,490
Natural Gasoline .....	0	0	0	1,335	263	1,072	263	1,072	-809	0	263	-263	0	0	0
Unfractionated Stream .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant Condensate .....	0	0	0	12	0	12	0	12	-12	0	0	0	0	0	0
Liquefied Petroleum Gases .....	2,979	4	2,975	8,129	2,835	5,294	1,571	10,022	-8,451	182	0	182	0	0	0
Unfinished Oils .....	909	21	888	120	0	120	0	1,218	-1,218	0	0	0	210	0	210
Motor Gasoline Blending Components .....	0	0	0	718	0	718	0	718	-718	0	0	0	0	0	0
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline .....	40,097	4,664	35,433	10,276	4,032	6,244	1,971	45,323	-43,352	1,256	800	456	1,219	0	1,219
Finished Leaded Motor Gasoline .....	18,672	2,516	16,156	5,121	2,140	2,981	929	20,997	-20,068	734	556	178	753	0	753
Finished Unleaded Motor Gasoline .....	21,425	2,148	19,277	5,148	1,885	3,263	1,042	24,319	-23,277	515	244	271	466	0	466
Gasohol .....	0	0	0	7	7	0	0	7	-7	7	0	7	0	0	0
Finished Aviation Gasoline .....	180	17	163	95	15	80	0	258	-258	15	0	15	0	0	0
Naphtha-Type Jet Fuel .....	832	141	691	141	110	31	110	956	-846	0	91	-91	215	0	215
Kerosene-Type Jet Fuel .....	7,165	195	6,970	1,600	671	929	73	8,654	-8,581	556	34	522	160	0	160
Kerosene .....	1,245	180	1,065	292	3	289	0	1,354	-1,354	0	0	0	0	0	0
Distillate Fuel Oil .....	19,304	1,339	17,965	2,678	1,073	1,605	595	20,706	-20,111	207	258	-51	592	0	592
Distillate Fuel Oil Less No. 4 .....	19,275	1,339	17,936	2,678	1,073	1,605	595	20,677	-20,082	207	258	-51	592	0	592
No. 4 Fuel Oil .....	29	0	29	0	0	0	0	29	-29	0	0	0	0	0	0
Residual Fuel Oil .....	5,959	0	5,959	0	1,005	-1,005	864	5,792	-4,928	0	0	0	0	26	-26
Naphtha and Other Oils for Petro. Feedstock Use .....	135	114	21	159	33	126	85	232	-147	0	0	0	0	0	0
Special Naphthas .....	226	0	226	68	0	68	0	294	-294	0	0	0	0	0	0
Lubricants .....	436	51	385	143	29	114	52	701	-649	0	0	0	160	10	150
Wax .....	6	0	6	0	0	0	0	6	-6	0	0	0	0	0	0
Asphalt and Road Oil .....	143	0	143	57	0	57	0	200	-200	0	0	0	0	0	0
Miscellaneous Products .....	824	0	824	80	191	-111	30	713	-683	0	0	0	2	32	-30
<b>Total All Products</b> .....	83,007	6,726	76,281	26,907	10,282	16,625	19,917	99,519	-79,602	2,216	1,446	770	2,558	16,632	-14,074

Note: Total may not equal sum of components due to independent rounding.  
Sources: See Explanatory Notes on Data Collection and Estimation.

Table 29. Production of No.4 Fuel Oil and Residual Fuel Oil By Sulfur Content, February 1982  
(Thousands of Barrels)

Commodity	PAD District I			PAD District II				PAD District III				PAD		United States			
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico		Total		
No. 4 Fuel Oil .....	0	20	20	0	35	0	0	35	35	307	80	42	191	655	30	80	820
0.00 to 0.30% Sulfur .....	0	3	3	0	1	0	0	1	0	307	17	4	0	328	0	0	332
0.31 to 0.50% Sulfur .....	0	0	0	0	0	0	0	0	23	0	0	0	0	23	28	3	54
0.51 to 1.00% Sulfur .....	0	0	0	0	34	0	0	34	0	0	0	2	191	193	0	42	269
1.01 to 2.00% Sulfur .....	0	17	17	0	0	0	0	0	12	0	25	0	0	37	2	10	66
Greater Than 2.00% Sulfur .....	0	0	0	0	0	0	0	0	0	0	38	36	0	74	0	25	99
Residual Fuel Oil .....	5,029	250	5,279	133	2,285	456	624	3,498	974	5,457	4,383	403	139	11,356	410	11,273	31,816
0.00 to 0.30% Sulfur .....	61	25	86	0	2	0	0	2	148	356	19	99	51	673	-30	553	1,284
0.31 to 0.50% Sulfur .....	1,401	94	1,495	0	40	46	82	168	172	374	35	87	0	668	131	3,381	5,843
0.51 to 1.00% Sulfur .....	573	0	573	133	917	0	222	1,272	517	752	958	131	6	2,364	91	844	5,144
1.01 to 2.00% Sulfur .....	543	131	674	0	579	136	161	876	124	36	1,078	11	82	1,331	81	5,810	8,772
Greater Than 2.00% Sulfur .....	2,451	0	2,451	0	747	274	159	1,180	13	3,939	2,293	75	0	6,320	137	685	10,773

Note: Total may not equal sum of components due to independent rounding.  
Source: See Explanatory Notes on Data Collection and Estimation.

Table 30. Stocks of No.4 Fuel Oil and Residual Fuel Oil By Sulfur Content, February 1982  
(Thousands of Barrels)

Commodity	PAD District I				PAD District II				PAD District III				PAD District IV			United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.		Dist. V West Coast
<b>No. 4 Fuel Oil -- 0.00 to 0.30% Sulfur</b>																	
Refinery .....	0	4	4	0	1	0	0	0	1	0	108	72	8	0	188	0	0
Bulk Terminal .....	506	0	506	0	0	0	0	0	0	0	6	0	1	0	7	0	513
Total .....	506	4	510	0	1	0	0	0	1	0	114	72	9	0	195	0	706
<b>No.4 Fuel Oil -- 0.31 to 0.50% Sulfur</b>																	
Refinery .....	0	0	0	0	4	0	0	0	4	34	0	1	0	0	35	8	19
Bulk Terminal .....	91	0	91	0	0	0	0	0	0	0	0	0	0	0	0	0	91
Total .....	91	0	91	0	4	0	0	0	4	34	0	1	0	0	35	8	157
<b>No. 4 Fuel Oil -- 0.51 to 1.00% Sulfur</b>																	
Refinery .....	0	0	0	0	47	0	0	0	47	31	86	0	2	71	190	0	15
Bulk Terminal .....	676	0	676	0	50	0	0	0	50	0	0	0	0	0	0	0	726
Total .....	676	0	676	0	97	0	0	0	97	31	86	0	2	71	190	0	726
<b>No. 4 Fuel Oil -- 1.01 to 2.00% Sulfur</b>																	
Refinery .....	0	5	5	0	0	0	0	0	0	36	0	42	0	0	78	3	17
Bulk Terminal .....	458	0	458	0	0	0	0	0	0	0	0	0	0	0	0	0	477
Total .....	458	5	463	0	0	0	0	0	0	36	0	42	0	0	78	3	580
<b>No.4 Fuel Oil -- Greater Than 2.00% Sulfur</b>																	
Refinery .....	0	0	0	0	0	0	0	0	0	0	0	41	79	0	120	0	124
Bulk Terminal .....	109	0	109	10	53	0	0	63	0	0	0	30	0	0	30	0	202
Total .....	109	0	109	10	53	0	0	63	0	0	0	71	79	0	150	0	326
<b>Residual Fuel Oil -- 0.00 to 0.30% Sulfur</b>																	
Refinery .....	7	52	59	0	0	0	0	0	0	78	184	35	36	17	350	99	1,265
Bulk Terminal .....	2,126	0	2,126	0	18	0	0	18	0	0	10	1,811	2	0	1,823	0	3,967
Total .....	2,133	52	2,185	0	18	0	0	18	78	194	1,846	38	17	2,173	99	757	5,232
<b>Residual Fuel Oil -- 0.31 to 0.50% Sulfur</b>																	
Refinery .....	746	21	767	0	118	33	9	160	21	245	13	72	1	352	57	2,533	3,869
Bulk Terminal .....	1,202	0	1,202	0	0	0	104	104	0	132	440	0	0	572	0	57	1,935
Total .....	1,948	21	1,969	0	118	33	113	264	21	377	453	72	1	924	57	2,590	5,804
<b>Residual Fuel Oil -- 0.51 to 1.00% Sulfur</b>																	
Refinery .....	1,037	0	1,037	31	945	0	272	1,248	137	865	1,360	75	3	2,440	22	618	5,365
Bulk Terminal .....	4,519	51	4,570	167	1,410	20	139	1,736	21	356	288	0	0	665	0	284	7,255
Total .....	5,556	51	5,607	198	2,355	20	411	2,984	158	1,221	1,648	75	3	3,105	22	902	12,620
<b>Residual Fuel Oil -- 1.01 to 2.00% Sulfur</b>																	
Refinery .....	822	61	883	0	644	156	223	1,023	37	989	722	7	44	1,799	293	4,380	8,378
Bulk Terminal .....	3,096	37	3,133	82	565	121	450	1,218	0	153	251	0	0	404	0	1,675	6,430
Total .....	3,918	98	4,016	82	1,209	277	673	2,241	37	1,142	973	7	44	2,203	293	6,055	14,808
<b>Residual Fuel Oil -- Greater than 2.00% Sulfur</b>																	
Refinery .....	687	0	687	0	771	217	235	1,223	16	2,353	845	87	0	3,301	198	390	5,799
Bulk Terminal .....	10,402	25	10,427	0	283	57	218	558	0	1,026	1,534	85	0	2,645	0	239	13,869
Total .....	11,089	25	11,114	0	1,054	274	453	1,781	16	3,379	2,379	172	0	5,946	198	629	19,668
<b>Residual Fuel Oil -- Sulfur Content Not Specified</b>																	
Pipeline .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Total .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17

Note: Total may not equal sum of components due to independent rounding.  
Sources: See Explanatory Notes on Data Collection and Estimation.

Table 31. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, February 1982  
(Thousands of Barrels)

Country	Residual Fuel Oil						Total
	0.00 to 0.30%	0.31 to 0.50%	0.51 to 1.00%	1.01 to 2.00%	Greater Than 2.00%	Not Specified	
<b>Arab OPEC</b>							
Algeria .....	1,755	0	0	0	0	0	1,755
Subtotal Arab OPEC .....	1,755	0	0	0	0	0	1,755
<b>Other OPEC</b>							
Ecuador .....	108	0	0	325	0	0	434
Gabon .....	0	0	0	0	0	0	0
Indonesia .....	657	88	90	0	0	0	835
Iran .....	0	0	0	0	0	0	0
Nigeria .....	0	0	0	0	0	0	0
Venezuela .....	2,408	0	830	530	2,185	0	5,952
Subtotal Other OPEC .....	3,173	88	920	855	2,185	0	7,221
<b>Other</b>							
Angola .....	0	0	0	0	0	0	0
Australia .....	0	0	0	0	0	0	0
Bahamas .....	341	0	0	411	165	0	917
Bolivia .....	0	0	0	0	0	0	0
Brazil .....	358	0	680	0	0	0	1,038
Brunei .....	0	28	0	0	0	0	28
Canada .....	0	0	950	159	5	0	1,114
Congo .....	0	0	0	0	0	0	0
Egypt .....	0	0	0	0	0	0	0
France .....	0	0	0	0	0	0	0
Ghana .....	146	0	0	0	0	0	146
Liberia .....	0	0	0	0	0	0	0
Malaysia .....	0	0	0	0	0	0	0
Mexico .....	(s)	0	0	0	2,080	0	2,080
Netherlands .....	0	0	0	0	0	0	0
Netherlands Antilles .....	595	0	248	555	3,699	0	5,098
Norway .....	0	0	0	0	0	0	0
Oman .....	0	0	0	0	0	0	0
People's Republic of China .....	0	0	0	0	0	0	0
Peru .....	0	2	311	0	0	0	313
Puerto Rico .....	0	0	0	0	0	0	0
Romania .....	0	0	0	0	0	0	0
Spain .....	0	0	0	0	0	0	0
Syria .....	0	0	0	0	0	0	0
Trinidad .....	93	0	283	0	0	0	376
Tunisia .....	0	0	0	0	0	0	0
United Kingdom .....	0	0	0	0	0	0	0
Virgin Islands .....	1,018	855	786	1,498	738	0	4,894
Yugoslavia .....	0	0	0	0	0	0	0
Zaire .....	0	0	0	0	0	0	0
<b>Other Western Hemisphere</b>							
Hemisphere .....	234	177	421	125	0	0	957
Other Eastern Hemisphere .....	(s)	40	0	0	0	0	40
Subtotal Other .....	2,786	1,101	3,680	2,748	6,687	0	17,001
<b>Total Imports .....</b>	<b>7,713</b>	<b>1,189</b>	<b>4,600</b>	<b>3,603</b>	<b>8,872</b>	<b>0</b>	<b>25,977</b>

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

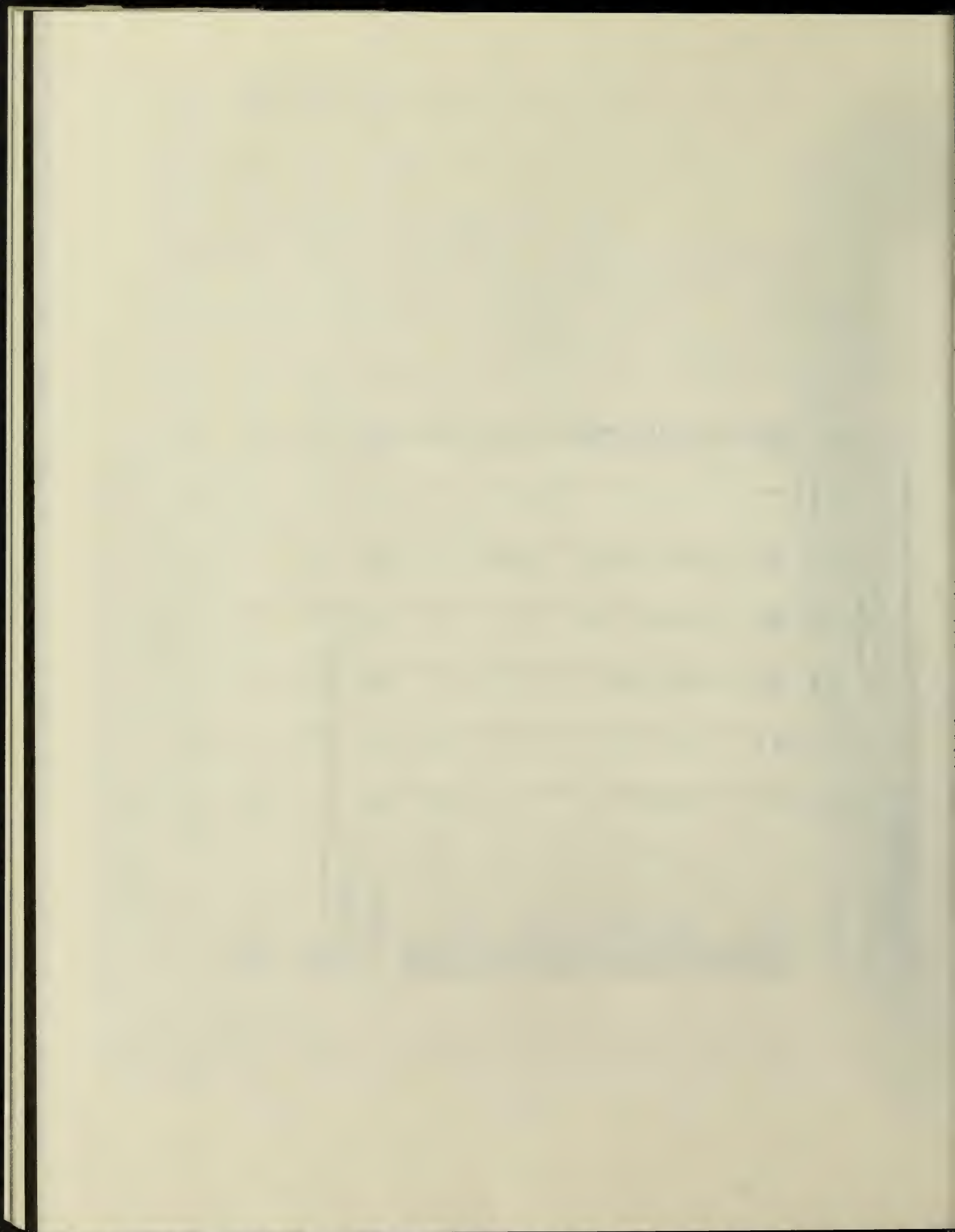
Table 32. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, February 1982  
(Thousands of Barrels)

State	Residual Fuel Oil					
	0.00 to 0.30%	0.31 to 0.50%	0.51 to 1.00%	1.01 to 2.00%	Greater Than 2.00%	Not Specified
<b>PAD District I</b> .....	<b>7,248</b>	<b>1,031</b>	<b>3,748</b>	<b>3,603</b>	<b>6,404</b>	<b>0</b>
Connecticut .....	0	0	215	118	0	0
Delaware .....	0	0	153	0	0	0
Florida .....	0	0	0	282	482	0
Georgia .....	0	0	0	0	293	0
Maine .....	0	0	35	601	1,201	0
Maryland .....	0	0	165	355	288	0
Massachusetts .....	0	0	813	82	1,893	0
New Jersey .....	1,763	321	313	180	716	0
New York .....	4,893	257	1,241	1,207	470	0
North Carolina .....	0	0	0	100	110	0
Pennsylvania .....	584	453	591	29	251	0
Rhode Island .....	0	0	221	0	99	0
South Carolina .....	7	0	0	0	111	0
Virginia .....	0	0	0	647	491	0
<b>PAD District II</b> .....	<b>0</b>	<b>0</b>	<b>724</b>	<b>0</b>	<b>5</b>	<b>0</b>
Michigan .....	0	0	724	0	0	0
North Dakota .....	0	0	0	0	5	0
<b>PAD District III</b> .....	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,046</b>	<b>0</b>
Louisiana .....	1	0	0	0	1,010	0
Texas .....	(s)	0	0	0	1,036	0
<b>PAD District IV</b> .....	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>PAD District V</b> .....	<b>465</b>	<b>157</b>	<b>129</b>	<b>0</b>	<b>416</b>	<b>0</b>
California .....	465	0	0	0	0	0
Hawaii .....	(s)	157	90	0	0	0
Oregon .....	0	0	0	0	199	0
Washington .....	0	0	39	0	217	0
<b>All PAD Districts</b> .....	<b>7,713</b>	<b>1,189</b>	<b>4,600</b>	<b>3,603</b>	<b>8,872</b>	<b>0</b>
<b>Total</b> .....						<b>25,977</b>

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.



# Glossary



## Glossary

## Definitions of Petroleum Products and Other Terms

**Alcohol.** The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group,  $\text{CH}(\text{CH})_n\text{-OH}$ . "Alcohol" includes ethanol and methanol.

**Asphalt.** A dark-brown-to-black cement-like material, containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor is 5.5 42-gallon barrels per short ton.

**ASTM.** The acronym for the American Society for Testing and Materials.

**Aviation Gasoline Blending Components.** Finished components in the gasoline range which will be used for blending or compounding into finished aviation gasoline.

**Aviation Gasoline (Finished).** All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D 910 and Military Specification MIL-G-5572.

**Barrel.** A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt, and wax to barrels are given in the definitions for these products.

**Butane.** A normally gaseous paraffinic hydrocarbon,  $\text{C}_4\text{H}_{10}$ . It is extracted from natural gas or refinery gas streams. Butane is covered by ASTM Specification D1835 and Gas Processors Association Specification for commercial butane.

- **Normal Butane**—A saturated straight-chain hydrocarbon of butane. It is a colorless paraffinic gas that boils at a temperature of  $31.1^\circ\text{F}$ . This classification includes mixtures of gases that contain 80 percent or more normal butane.

- **Other Butanes**—All butanes not included as normal butane or isobutane.

**Butane-Propane Mixtures.** Mixtures consisting exclusively of butane and propane that conform to ASTM Specification D1835 and Gas Processors Specification for commercial butane-propane. They are extracted from natural gas and refinery gas streams.

**Butylene.** An olefinic hydrocarbon,  $\text{C}_4\text{H}_8$ , recovered from refinery processes. It is reported in the "Butane" category.

**Coal.** A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D 388.

**Crude Oil (including Lease Condensate).** A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Lease condensate is included. Drips are also included, but topped crude (residual) oil and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

- **Domestic**—Crude oil produced in the United States or from its outer continental shelf as defined in 43 U.S.C. 1331. Hydrocarbons such as shale oil and tar sand oil are included.

- **Foreign**—Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

**Distillate Fuel Oil.** A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1 and No. 2 heating oils, No. 1 and No. 2 diesel fuel oils, and No. 4 fuel oil.

- **No. 1 Fuel Oil**—A light distillate fuel oil intended for vaporizing pot-type burners. ASTM Specification D 396 specifies for this grade maximum distillation temperatures of 400° F. at the 10-percent point and 550° F. at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100° F.

- **No. 2 Fuel Oil**—A distillate fuel oil for domestic heating for use in atomizing-type burners or for moderate capacity commercial-industrial burner units. ASTM Specification D 396 specifies for this grade temperatures at the 90-percent point between 540° and 640° F., and kinematic viscosities between 2.0 and 3.6 centistokes at 100° F.

- **No. 1 and No. 2 Diesel Fuel Oils**—Distillate fuel oils used in compression-ignition engines, as given by ASTM Specification D 975:

1. **No. 1-D**—A volatile distillate fuel oil in the 400° to 550° F. boiling range for engines in service requiring frequent speed and load changes. Type C-B diesel fuel, which is used for city buses and similar operations, is included.

2. **No. 2-D**—A distillate fuel oil of lower volatility in the 540° to 640° F. boiling range for engines in industrial and heavy mobile service. Type R-R diesel fuel for railroad compression-ignition engines and Type T-T for diesel-engine trucks are included.

- **No. 4 Fuel Oil**—A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D 396 or Federal Specification VV-F-815C; its kinematic viscosity is between 5.8 and 26.4 centistokes at 100° F. Also included is No. 4-D, a fuel oil for low- and medium-speed diesel engines that conforms to ASTM Specification D 975.

**Eastern Hemisphere.** That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa, and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

**Electric Energy (Purchased).** Electricity purchased for refinery operations that is not produced within the refinery complex.

**Ethane.** A normally gaseous paraffinic hydrocarbon,  $C_2H_6$ , extracted from natural gas and refinery gas streams. "Ethane" includes any product containing 90 percent liquid volume or more ethane.

**Ethane-Propane Mixtures.** Mixtures of ethane and propane in which neither component is 90 percent or more of the liquid volume. It is extracted for natural gas and refinery gas streams.

**Ethylene.** An olefinic hydrocarbon,  $C_2H_4$ , recovered from refinery and petrochemical processes. It is reported in the "Ethane" category.

**Field Production.** Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

**Gas Well Gas.** Natural gas produced from gas wells. Such gas may be either associated gas or non-associated gas.

- **Associated Gas**—Free natural gas in immediate contact, but not in solution, with crude oil in the reservoir.

- **Non-Associated Gas**—Free natural gas not in contact with, nor dissolved in, crude oil in the reservoir.

**Imported Crude Oil Burned as Fuel.** The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. "Imported crude oil burned as fuel" includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and oil shale.

**Isobutane.** A saturated branch-chain isomer of butane. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. This classification includes mixtures of gases that contain 80 percent liquid volume or more isobutane. It is extracted from natural gas and refinery gas streams.

**Isopentane.** A saturated branch-chain hydrocarbon,  $C_5H_{12}$ , obtained by fractionation of natural gasoline or isomerization of normal pentane.

**Kerosene.** A petroleum distillate that boils at a temperature between 300° and 550° F., that has a flash point higher than 100° F. by ASTM Method D 56, that has a gravity range from 40° to 46° API, and that has a burning point in the range of 150° to 175° F. It is a clean-burning product suitable for use as an illuminant when burned in wick lamps. Includes grades of kerosene called range oil having properties similar to No. 1 fuel oil, but with a gravity of about 43° API and having a maximum end-point of 625° F. Kerosene is used in space heaters, cook stoves, and water heaters.

**Kerosene-Type Jet Fuel.** A quality kerosene product with an average gravity of 40.7° API, a 10-percent distillation temperature of 400° F., and an end-point of 572° F. It is covered by ASTM Specification D 1655 and Military Specification MIL-T-5624L (Grade JP-5 and JP-8). It is used primarily for commercial turbojet and turboprop aircraft engines.

**Lease Condensate.** A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

**Lease Separator.** A surface facility used for separating casinghead gas from produced crude oil and water and separating gas from that portion of associated gas and non-associated gas that liquefies at the temperature and pressure conditions of the separator.

**Liquefied Petroleum Gases (LPG).** Propane, propylene, butanes, butylene, ethane-propane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids. Formerly called "Liquefied Gases."

**Liquefied Refinery Gases (LRG).** Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration they are retained in the liquid state. The reported categories are ethane and/or ethylene, propane and/or propylene, butane and/or butylene, butane-propane mixtures, and isobutane. Excludes still gases used for chemical or rubber manufacture which are reported as petrochemical feedstocks and also excludes liquefied gases ready for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstocks, other uses, or both.

**Lubricants.** A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories reported are:

- **Bright Stock**—A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.
- **Neutral**—A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100° F. It is prepared by a treatment such as hydrofining, acid treatment, or solvent extraction.
- **Other**—A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

**Miscellaneous Products.** Includes all finished products not classified elsewhere. "Miscellaneous products" include petrolatum, absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and other finished products.

**Motor Gasoline Blending Components.** Finished components in the gasoline range that will be used for blending or compounding into finished motor gasoline. Pool gasoline is included in this category.

**Motor Gasoline (Finished).** A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition

engines. Specifications for motor gasoline, as given in ASTM Specification D 439 or Federal Specification VV-G-1690B, include a boiling range of 122° to 158° F. at the 10-percent point to 365° to 374° F. at the 90-percent point and a Reid vapor pressure range from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

- **Finished Leaded Gasoline**—Contains more than 0.05 grams of lead per gallon or more than 0.005 grams of phosphorus per gallon. The actual lead content of any given gallon, however, may vary as a function of the size of the producer and company according to specific Environmental Protection Agency waiver provisions. Premium and regular grades are included, depending on the octane rating.
- **Finished Unleaded Gasoline**—Contains up to 0.05 grams of lead per gallon and 0.005 grams of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating.
- **Gasohol**—A blend of alcohol and finished motor gasoline that is no more than 90 percent of finished motor gasoline (leaded or unleaded as described above) and no less than 10 percent or more alcohol (ethanol or methanol).

**Motor Gasoline (Total).** Includes finished leaded motor gasoline, finished unleaded motor gasoline, motor gasoline blending components, and gasohol.

**Naphtha-Type Jet Fuel.** A fuel in the heavy naphtha boiling range with an average gravity of 52.8° API and 20 to 90 percent distillation temperatures of 290° to 470° F., meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. This category excludes ram-jet and petroleum rocket fuels, which are included in the "Miscellaneous Products" category.

**Natural Gas.** A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

**Natural Gas Field Facility.** A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, butane, natural gasoline, etc., and to control the quality of natural gas to be marketed.

**Natural Gas Plant Liquids.** Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials, and are classified as follows: Ethane, propane, ethane-propane mix, isobutane, butane, butane-propane mix, isopentane, natural gasoline, plant condensate, unfractionated stream, and other products from natural gas processing plants (i.e., products meeting the standards of finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

**Natural Gas Processing Plant.** A facility designed to recover natural gas liquids from a stream of natural gas that may or may not have been processed through lease separators or natural gas field facilities. The facility also controls the quality of natural gas to be marketed. Cycling plants are classified as gas processing plants.

**Natural Gasoline.** A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Producers Association.

**OPEC.** The acronym for the Organization of Petroleum Exporting Countries, oil-producing and-exporting countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices, and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

**Operable Distillation Capacity.** The maximum amount of input that can be processed by a crude oil distillation unit in a 24-hour period, making allowances for processing limitations due to types and

grades of inputs, limitations of downstream facilities, scheduled and unscheduled downtimes, and environmental constraints. Includes any shutdown capacity that could be placed in operation within 90 days.

**Other Hydrocarbons.** Materials received by a refinery and consumed as raw materials. Includes hydrogen, coal, tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

**Petrochemical Feedstocks.** Chemical feedstocks derived from petroleum, principally for the manufacture of synthetic rubber and a variety of plastics. The categories reported are "Naphtha-less than 400° F. end-point" and "Other oils over 400° F. end-point."

- Naphtha less than 400° F. end-point—A naphtha with an end point of less than 400° F. and that is reported as used as a petrochemical feedstock.
- Other oils over 400° F. end-point—Oils with an end point over 400° F. and that are reported as used as a petrochemical feedstock.

**Petroleum Coke.** A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 42-gallon barrels per short ton.

- Marketable Coke—Those grades of coke that are produced in delayed or fluid cokers and which may be recovered as relatively pure carbon. This "green" coke may be sold or further purified by calcining.
- Catalyst Coke—In many catalytic operations (i.e., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as fuel in the refinery process. This carbon or coke is not recoverable in a concentrated form.

**Petroleum Products.** Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, natural gasoline and isopentane, plant condensate, unfractionated stream, ethane, liquefied petroleum gases, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400° F. end-point, other oils-over 400° F. end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

**Petroleum Refinery.** An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas plant liquids, other hydrocarbons, and alcohol.

**Plant Condensate.** One of the natural gas plant liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

**Primary Stocks.** Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in transit from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. "Primary Stocks" excludes stocks of foreign origin that are held in bonded warehouse storage.

**Propane.** A normally gaseous hydrocarbon,  $C_3H_8$  extracted from natural gas and refinery gas streams. It is used primarily as a fuel and as a petrochemical feedstock. Propane is covered by ASTM Specification D1835, Gas Processors Association for commercial and HD-5 propane, and ASTM Specification for special duty propane.

**Propylene.** An olefinic hydrocarbon,  $C_3H_6$ , recovered from refinery and petrochemical processes. It is reported in the "Propane" category.

**Residual Fuel Oil.** Topped crude of refinery operations. "Residual Fuel Oil" includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D 396 and Federal Specification VV-F-815C; Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2; Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

**Road Oil.** Any heavy petroleum oil, including residual asphaltic oils, used as a dust palliative and surface treatment of roads and highways. It is generally produced in six grades; from 0, the most liquid, to 5, the most viscous.

**Special Naphthas.** All finished products within the gasoline range that are used as paint thinners, cleaners, and solvents. These products are refined to a specified flash point and have a boiling range of 90° to 220° F. "Special naphthas" includes all commercial hexane and cleaning solvents conforming to ASTM Specifications D1836 and D 484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

**Steam (Purchased).** Steam that is purchased for use by a refinery that was not generated from within the refinery complex.

**Still Gas (Refinery Gas).** Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, butane, butylene, propane, propylene, etc. Still gas is reported for petrochemical feedstock use and refinery fuel use.

- **Petrochemical Feedstock Use**—Includes all refinery streams which are used by chemical or rubber manufacturing operations for further processing, less the amount of such streams returned to the source refinery. Finished petrochemical products are not included. For example, polyethylene, butadiene, etc. are considered petrochemical products; therefore, only their feedstock equivalents are included.

- **Fuel Use**—All other still gas.

**Strategic Petroleum Reserve (SPR).** Stocks (currently, only crude oil) maintained by the Federal Government for use during periods of major supply interruption.

**Unfinished Oils.** Includes all oils requiring further processing, except those requiring only mechanical blending.

**Unfractionated Stream.** Mixtures of unsegregated natural gas plant liquid components excluding those included in plant condensate. This product is extracted from natural gas.

**Wax.** A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is a light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades reported are microcrystalline, crystalline—fully refined, and crystalline—other. The conversion factor is 280 pounds per 42-gallon barrel.

- **Microcrystalline Wax**—Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics:

Penetration at 77° F. (D-1321)—60 maximum.  
Viscosity at 210° F. in Saybolt Universal Seconds (SUS)  
(D-88)—60 SUS (10.22 centistokes) minimum to 150  
SUS (31.8 centistokes) maximum.  
Oil content (D-721)—5 percent minimum.

- **Crystalline-Fully Refined Wax**—A light-colored paraffin wax having the following characteristics:

Viscosity at 210° F.  
(D-88)—59.9 SUS (10.18 centistokes) maximum.  
Oil Content (D-721)—0.5 percent maximum.  
Other +20 color, Saybolt minimum.

- **Crystalline-Other Wax**—A paraffin wax having the following characteristics:

Viscosity at 210° F. (D-88)—59.9 SUS (10.18 centistokes) maximum.  
Oil Content (D-721)—0.51 percent minimum to 15 percent maximum.

**Western Hemisphere.** That half of the earth that includes North and South America and the surrounding waters.

## Bureau of Mines Petroleum Refining Districts and PAD Districts

### PAD District

I

### Refining District

**East Coast**—District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

**Appalachian #1**—The State of West Virginia, those parts of the States of Pennsylvania and New York not included in the East Coast District.

**Appalachian #2**—The following counties of the State of Ohio: Erie, Huron, Crawford, Marion, Delaware, Franklin, Pickaway, Ross, Pike, Scioto, and all counties east thereof.

II

**Indiana—Illinois—Kentucky**—The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and that part of the State of Ohio not included in the Appalachian District.

**Minnesota—Wisconsin—North and South Dakota**—The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

**Oklahoma—Kansas—Missouri**—The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

**Texas Inland**—The State of Texas except the Texas Gulf Coast District.

**Texas Gulf Coast**—The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

III

**Louisiana Gulf Coast**—The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

**North Louisiana—Arkansas**—The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

**New Mexico**—The State of New Mexico.

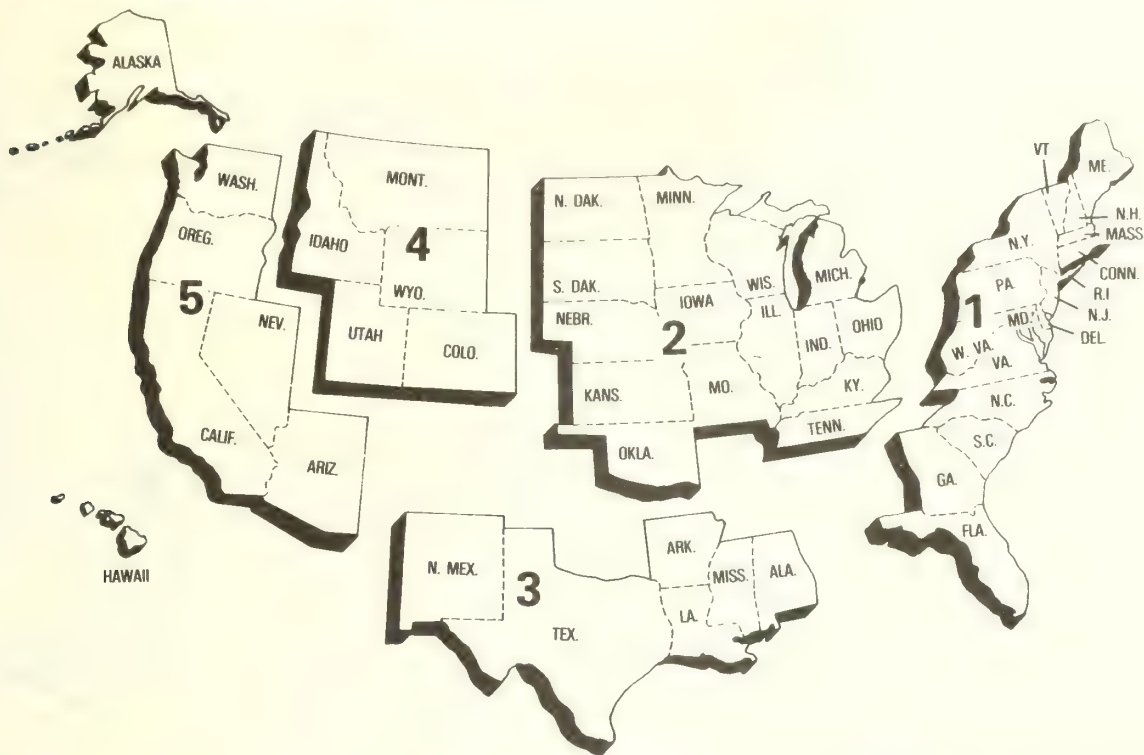
IV

**Rocky Mountain**—The States of Montana, Idaho, Wyoming, Utah, and Colorado.

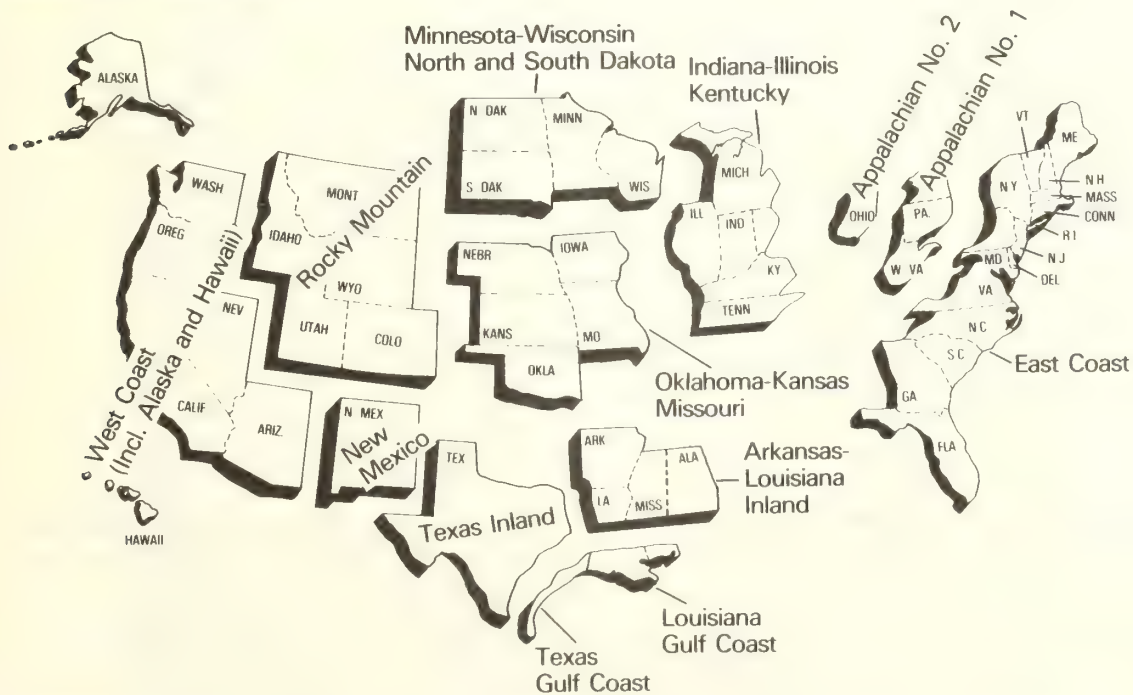
V

**West Coast**—The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

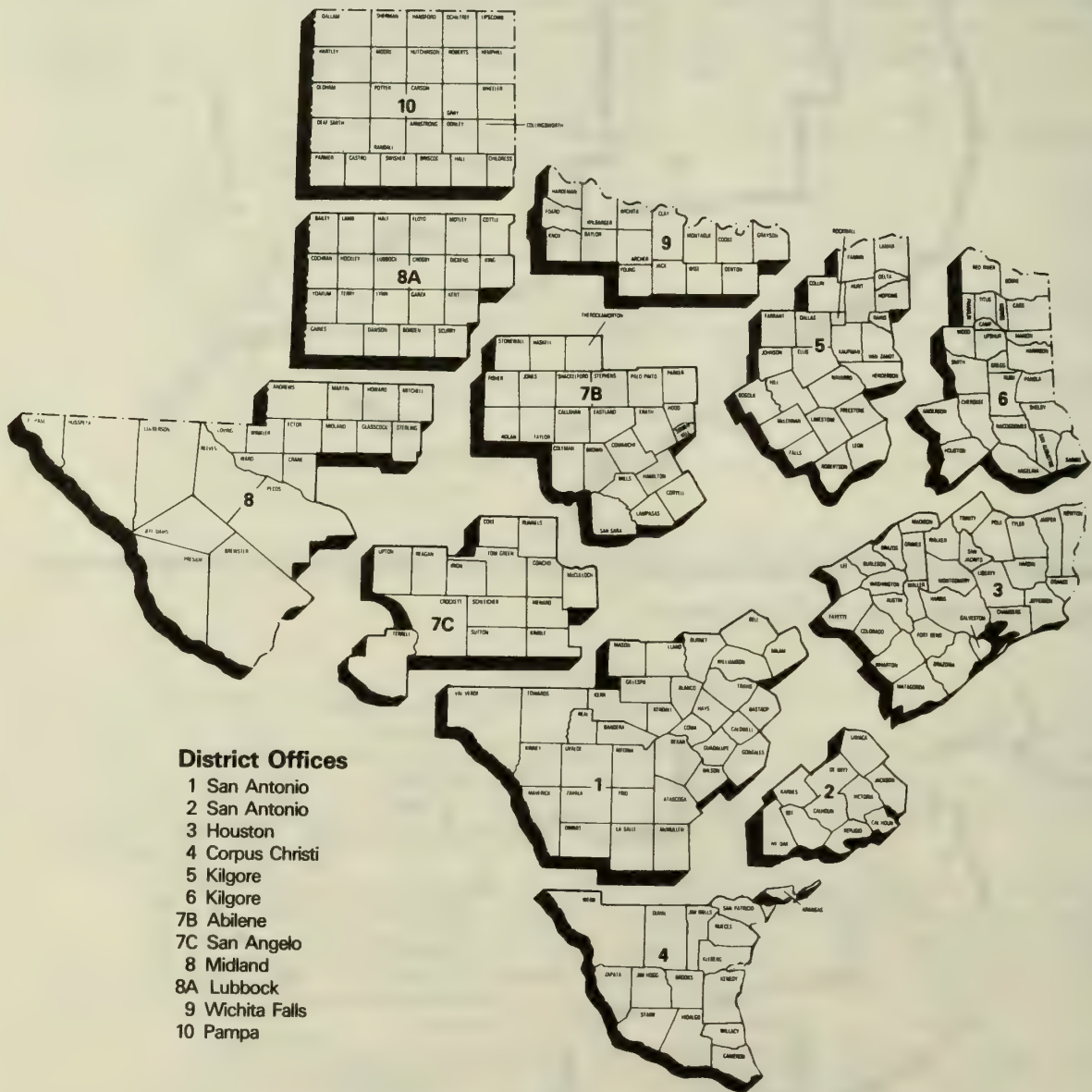
## Petroleum Administration for Defense (PAD) Districts



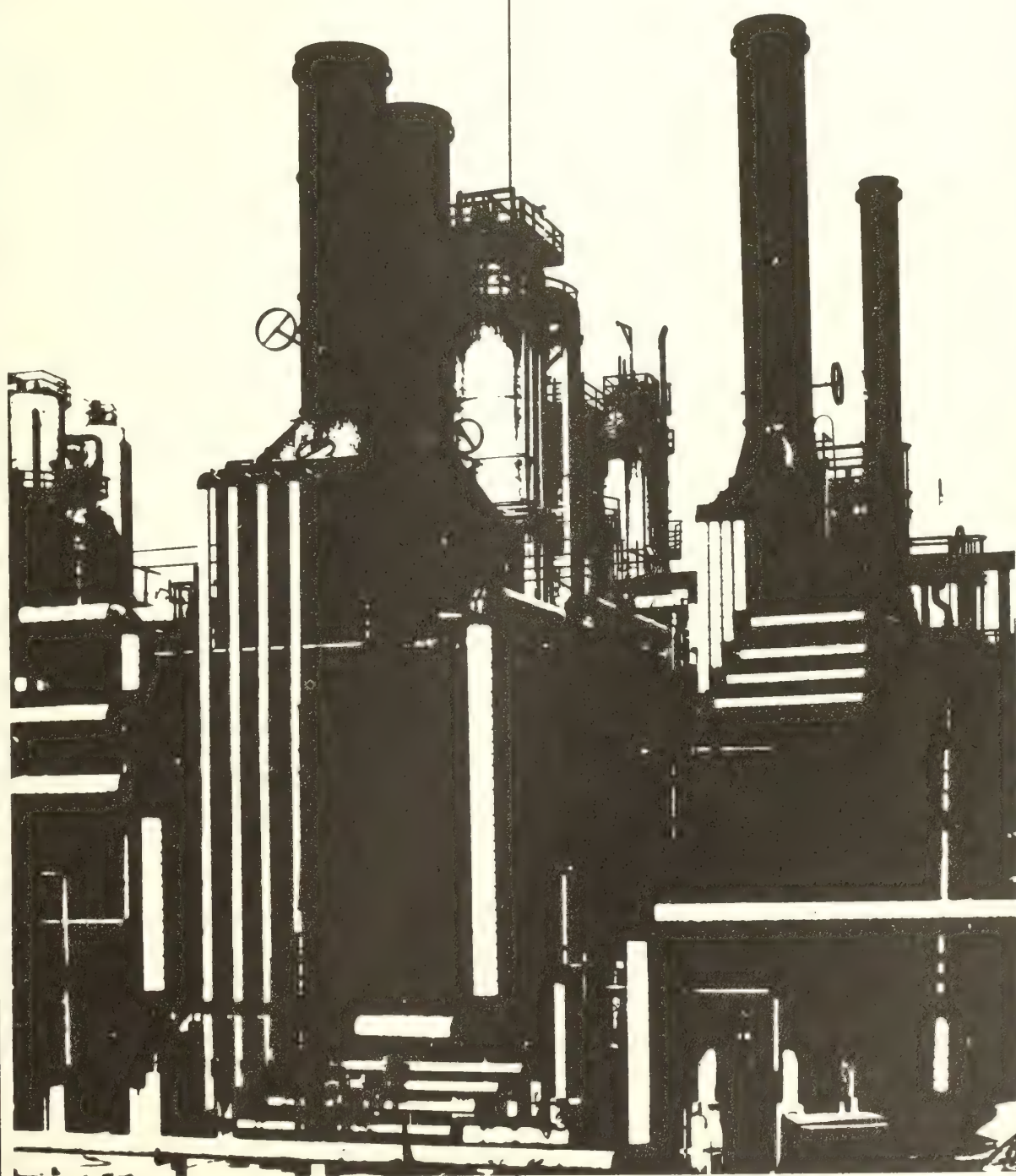
## Bureau of Mines Refining Districts



## District Map Oil and Gas Division Railroad Commission of Texas



# Explanatory Notes



## Explanatory Notes

### Note 1.1 EIA-64: Natural Gas Liquids Operations Report

#### Background

The EIA-64, "Natural Gas Liquids Operations Report" evolved from a survey designed and conducted by the United States Geological Survey beginning in 1911. This form collects data on the production and storage of natural gas plant liquids at natural gas processing plants and fractionators.

#### Description of Survey

##### Universe

The universe includes all operators of facilities designed to: (1) extract liquid hydrocarbons from natural gas streams (natural gas processing plants); (2) separate a combined products liquid hydrocarbon stream into its component products, i.e. propane, butane, natural gasoline, etc. (fractionators); or (3) store the liquid hydrocarbon output of plants and fractionators.

The mailing list is automated. It is maintained by matching periodically with the *LP Gas Almanac* listings (including supplements) and the *Oil and Gas Journal* Processing Plant Survey listings, and by making changes reported by the respondents.

##### Information Collected

The data are submitted monthly by facility and include all products that the company controls through possession, regardless of ownership. The main items of information collected by the EIA-64 are shown by the example of the form presented below.

##### Collection Methods

Completed reports are required to be postmarked 20 days following the last day of the report month. Follow-up telephone calls are made to nonrespondents in order to collect data before publication of the aggregated data.

##### Imputing Missing Data

Imputation is performed only for companies that submitted a report in the previous month. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. The value of shipments is adjusted to balance stock level, production, receipts, plant fuel use, and losses. In the event that the previous month's data were estimated, the respondent is contacted and requested to submit estimates, if necessary, to be followed by a resubmission of actual data.

##### Response Rates

The initial response rate averages 85 percent, with a final response averaging 98 percent as a result of telephone follow-up procedures.

##### Data Processing

Upon receipt, the reports are reviewed for identification section omissions, duplicate submissions, and identification information changes. The data are then entered and edited. The edit program includes checks for invalid data entry codes, range checks for current-month to previous-month changes (absolute and relative), arithmetic calculation errors, line balancing errors, etc. Telephone calls are made to respondents to resolve questions.

### Note 1.2 EIA-87, 88, 89 and 90: Joint Petroleum Reporting System

#### Background

The Joint Petroleum Reporting System (JPRS) comprises four surveys: the "Refinery Report" (EIA-87); the "Bulk Terminal Stocks Report" (EIA-88); the "Pipeline Products Report" (EIA-89); and the

[illegible]

"Crude Oil Stocks Report" (EIA-90). This group of forms collects data on petroleum refinery operations and on storage of crude oil and petroleum products. The origins of JPRS lie in the voluntary petroleum reporting systems instituted by the Bureau of Mines (BOM) soon after it was established as a part of the Department of the Interior in May 1910.

## **Description of Survey**

### **Universe**

The respondent universe of each JPRS survey is defined as follows:

**EIA-87:** All petroleum refineries and plants producing finished motor gasoline through the mechanical blending of liquids which are operated or controlled in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Hawaiian Foreign Trade Zone, and Guam.

**EIA-88:** All bulk terminal facilities in the 50 States and the District of Columbia, Puerto Rico, and the Virgin Islands that (a) have total bulk storage capacity of 50,000 barrels or more and/or (b) receive petroleum products by tanker, barge, or pipeline regardless of ownership of the material.

**EIA-89:** All products pipeline companies that carry petroleum products (including interstate, intrastate and intracompany pipelines) in the 50 States and the District of Columbia.

**EIA-90:** Crude oil pipeline companies (gathering and trunk pipeline companies), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water (in excess of 1,000 barrels), regardless of ownership in the 50 States and the District of Columbia.

The list of respondents is kept current by checking for new respondents in the *Oil and Gas Journal* weekly magazine; newspaper articles; the Office of Resource Applications publication "Trends in Refinery Capacity & Utilization;" the Office of Refinery Operations (ERA) list of U.S. Refiners; and the annual survey EIA-177 "Capacity of Petroleum Refineries."

### **Information Collected**

The main items of information collected by EIA-87, are shown by the example presented below. The EIA-88 and EIA-89 collect data on petroleum product stocks. The EIA-90 collects data on crude oil stocks and crude oil used directly as fuel.

### **Collection Methods**

The data for the JPRS surveys are collected on a monthly basis. Completed forms are required to be postmarked by the 20th day following the report month. Telephone follow-up calls are made to nonrespondents in order to collect data before publication deadline. An automated mailing list is maintained and is used to monitor receipt of the forms.

### **Imputing Missing Data**

Imputation is performed only for companies that submitted a report in the previous month. For these companies, the previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. The value of shipments is adjusted to balance stock level, production receipts, and losses. In the event that previous month's data were estimated, the respondent is contacted and requested to submit estimates if necessary, to be followed by a resubmission of actual data.

### **Response Rates**

As of the filing deadline, the response rate of the JPRS respondents is over 90 percent. All companies that have not responded are contacted by telephone. Although data are taken by telephone to expedite processing, a certified submission is still required. Thirty calendar days after the report month, data for companies that still fail to file the form are estimated based on prior month's data. Names of companies that fail to file for two consecutive months are forwarded to DOE for further noncompliance action. Final response rate is 100 percent.

Report Type **B 0 1** EIA Company Identification No. Report Period:  Yr.  Mo. **SECTION 6. REFINERY STOCKS, RECEIPTS, INPUTS, PRODUCTION, SHIPMENTS AND REFINERY FUEL USE AND LOSSES**  
(Thousands of Barrels of 42 Gallons)

ITEM DESCRIPTION	PRODUCT CODE	STOCKS, BEGINNING OF MONTH a	RECEIPTS, DURING MONTH b	ADJUSTMENTS, DURING MONTH c	STOCKS, END OF MONTH d	SHIPMENTS, DURING MONTH e	REFINERY FUEL USE, DURING MONTH f	LOSSES, DURING MONTH g
Crude oil (incl. water condensate) Total (sum of codes 010 and 020)	050				X			
Domestic (incl. Alaskan)	010	X		X	X	X	X	X
Foreign	020	X		X	X	X	X	X
Alaskan	011	X		X	X	X	X	X
Products of natural gas processing plants Ethane	110				X			
Propane	231				X			
Ethane-propane mixtures	241				X			
Isobutane	233				X			
Normal butane	235				X			
Other butanes	236				X			
Butane-propane mixtures	234				X			
Natural gasoline and isopentane	220				X			
Plant condensate	210				X			
Unfractionated stream	227				X			
Other hydrocarbons and hydrogen	090				X			
Alcohol	091				X			
Unfinished oils	812							
Gasoline								
Finished leaded, motor	132							
Finished unleaded, motor	133							
Blending components, motor	134							
Gasohol	135							
Finished aviation	111							
Blending components, aviation	112							
Special naphthas (solvents)	051							
Jet fuel								
Naphtha-type	211							
Kerosene type	213							
Kerosene (incl. range oil)	311							
Distillate fuel oil, Less No. 4	412							
No. 4 fuel oil	414							
Residual fuel oil	511							
Lubricating oils								
Bright stock	853							
Neutral	855							
Other	859							
Asphalt	900							
Wax								
Microcrystalline	061							
Crystalline-fully refined	071							
Crystalline-other	081							
Petroleum coke								
Marketable	021							X
Catalyst	022	X						
Road oil	031							
Still gas		X						X
Petrochemical feedstock use	042	X						X
Other use	044	X						
Ethane and/or ethylene								
Petrochemical feedstock use	612							
Other use	652							
Propane and/or propylene								
Petrochemical feedstock use	613							
Other use	653							
Butane and/or butylene								
Petrochemical feedstock use	614							
Other use	654							
Butane-propane mixtures								
Petrochemical feedstock use	616							
Other use	656							
Isobutane petrochemical feedstock use	615							
Naphtha - less than 400° and point								
Petrochemical feedstock use	822							
Other oils - over 400° and point								
Petrochemical feedstock use	824							
Other finished products								
Non-fuel use	097							
Fuel Use	098							
Overage (Inputs) or shortage (production)	911	X	X			X	X	X
TOTAL	999	X	X			X	X	X

## **Note 1.3 EIA-161, 162, 163, 164 and 165: Weekly Petroleum Reporting System**

### **Background**

The Weekly Petroleum Reporting System (WPRS) comprises five surveys: the "Refinery Report" (EIA-161); the "Bulk Terminal Stocks Report" (EIA-162); the "Pipeline Product Stock Report" (EIA-163); the "Crude Oil Stocks Report" (EIA-164); and the "Imports Report" (EIA-165).

The EIA weekly reporting system was designed to collect data similar to those collected under the monthly Joint Petroleum Reporting System (JPRS) (See Note 1.2). In the WPRS, selected petroleum companies report weekly data to EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On the Forms EIA-161 through EIA-164, companies report data on a custody basis. On the Form EIA-165, the importer of record reports each shipment entering the United States. Current weekly data and the most recent monthly data from the JPRS are used to estimate the published weekly totals.

### **Description of Survey**

#### **Universe**

The sample of companies that report weekly in the WPRS was selected from the universe of companies that report monthly in either the JPRS system or the ERA-60 system (for imports). All sampled companies report data only for facilities in the 50 States and the District of Columbia.

The sampling frame for each weekly survey is defined as follows:

**EIA-161:** Uses the EIA-87 universe, which includes all petroleum refineries in the United States and its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and bulk terminals that blend motor gasoline.

**EIA-162:** Uses the EIA-88 universe, which includes all bulk terminal facilities in the United States and its territories that have total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline.

**EIA-163:** Based on the EIA-89 universe, which includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that only transport natural gas liquids are not included in the EIA-163 frame. Only those pipeline companies which transport products covered in the weekly survey are included.

**EIA-164:** Uses the EIA-90 universe, which consists of all trunk pipeline companies in the United States and its territories which transport crude oil, all refining companies, all crude oil producers, all terminal operators, and all storers of 1,000 barrels or more of crude oil.

**EIA-165:** Uses the ERA-60 universe, which includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico.

#### **Sampling**

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for the previous time period.

#### **Collection Methods**

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. All canvassed firms and terminal operating companies must file by 5:00 p.m. on the Monday following the close of the report period, 7 a.m. Friday. During the processing week, company corrections of the prior week's data are also entered.

### Formula and Calculations

After the company reports have been checked and entered into the weekly data base, ratio estimates of the weekly totals are calculated from the reported data.

First, the current week's data for a given product reported by companies in that region are summed. (Call this weekly sum,  $W_s$ .) Next, the most recent month's data for the product reported by those same companies are summed. (Call this monthly sum,  $M_s$ .) Finally, let  $M_t$  be the sum of the most recent month's data for the product as reported by *all* companies. Then, the current week's ratio estimate for that product for all companies is given by.

$$W_t = \frac{M_t}{M_s} \circ W_s$$

This procedure is used directly to estimate total weekly inputs to refineries and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Under such conditions, the ratio method is known to result in large errors. Hence, a number of other procedures for estimating weekly imports were considered. The average ratio method was selected for estimating imports because it produces estimates that were close to benchmark values computed from monthly data. Estimates are obtained using the ratio method, but with each company in turn omitted from the sample. These estimates are then averaged to obtain the average ratio estimate.

### Imputing Missing Data

The ratio method of estimation automatically imputes for nonresponse. Data from companies that do not respond are excluded from both the weekly and the monthly totals for the sampled companies.

### Response Rates

The response rate as of the day after the filing deadline is about 80 percent for the EIA-161; 75 percent for the EIA-162; 95 percent for the EIA-163; 80 percent for the EIA-164; and greater than 95 percent for the EIA-165. However, more forms are received the next day, bringing the final response rates up. Late respondents are contacted by telephone. Nearly all of the major companies report on time. The nonresponse rate for the published estimates is usually between 2 percent and 5 percent.

## Note 1.4 EIA-170: Tanker and Barge Shipments of Crude Oil and Petroleum Products Between Districts

### Background

The EIA-170 survey collects data for calculation of monthly petroleum supply and disposition figures on U.S. and PAD District levels.

### Instrument and Design

This form is designed to collect data on total movements by tanker and barge of crude oil and petroleum products between PAD Districts or between PAD Districts and the Panama Canal, by shipping State and receiving State.

### Universe

The respondent universe of the EIA-170 consists of all known companies and plants that have custody of crude oil and petroleum products transported by tanker and barge between PAD Districts or between PAD Districts and the Panama Canal. There are currently about 60 respondents.

### **Collection Methods**

Survey data are collected by mail every month. The filing deadline is the 20th calendar day of the month following the report period. The response rate as of the filing deadline is about 98 percent. Late respondents are contacted by telephone. All responses are processed each month before release of the data for publication.

## **Note 1.5 ERA-60: Reports of Oil Imports into the United States and Puerto Rico**

### **Background**

The "Report of Oil Imports into the United States and Puerto Rico" (ERA-60) survey was designed by the Economic Regulatory Administration (ERA) of the Department of Energy to collect data on port of entry, country of origin, destination, and quantity of imported crude oil and petroleum products, as well as sulfur content and API gravity. All licensed importers and importers of record are required to report. The "Shipments of Refined Products from Puerto Rico to the United States" (P-133-M-O) survey was designed to collect data on imports to the United States that are not covered by the ERA-60.

### **Universe**

The monthly submission of Form ERA-60 and P-133-M-O is required by all licensed importers and importers of record into the United States and Puerto Rico. The respondent universe consisted of approximately 750 firms as of June 30, 1981. The respondent universe for these surveys is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

### **Collection Methods**

The survey data are collected by mail each month. It is mandatory for each respondent to file the ERA-60/P-133-M-O by the 15th working day of the month following the reporting period. Resubmissions are received frequently and are processed when received.

### **Response Rates**

In December 1980, the survey had a response rate of 92 percent by the filing deadline. The universe was 640 at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard followup of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. Response rate is generally 98-99% by the time the data are first published. Revised publications are not generated as standard operating procedure. The ERA-60 file is never closed; resubmissions are constantly received and processed.

## **Note 1.6 Census Import (IM-145) and Export (EM-522 and EM-594) Tabulations**

The foreign trade statistics program, conducted by the Bureau of the Census, involves compilation and dissemination of a large body of data relating to the imports and exports of the United States.

### **Import Statistics**

#### **Coverage**

The import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. Customs territory (includes the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

1. Merchandise shipped in transit through the United States, when documented with Customs as an intransit movement.
2. Shipments between the United States and Puerto Rico, the Virgin Islands, Guam, American Samoa, and other U.S. possessions; shipments between any of these outlying areas; and imports into U.S. possessions from foreign countries.
3. U.S. merchandise returned by U.S. Armed Forces for their own use.

#### **Source of Import Information**

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501- 7505).

Imported petroleum is reported as "Imports for Consumption." Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

#### **Country and Area of Origin**

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

#### **Export Statistics**

##### **Coverage**

The export statistics reflect both government and nongovernment exports of domestic and foreign merchandise from the U.S. Customs territory (includes the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

1. Shipments between the United States and Puerto Rico, the Virgin Islands, Guam, American Samoa, and other U.S. possessions; between any of these outlying areas; and shipments from U.S. Possessions to foreign countries.
2. Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
3. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

#### **Source of Export Information**

The official U.S. export statistics are compiled by the Bureau of the Census primarily from copies of Shipper's Export Declarations. Shipper's Export Declarations are required to be filed with Customs officials, except when qualified exporters have been authorized to submit data in the form of magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations directly to the Bureau of the Census.

#### **Country and Area of Destination**

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

## Note 2 Estimation

The geographic coverage of all estimates is the 50 United States and the District of Columbia, including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

### Note 2.1 Supply

The components of petroleum supply are field production, refinery production, imports, stock withdrawal or addition, crude oil used directly, and losses.

**Field Production** is the sum of crude oil (including lease condensate) production, natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation and revenue agencies. Reports of crude oil production from each of the 31 producing States are not received until several months after the other components of petroleum supply described in Explanatory Note 2.1 are available for publication. For an explanation of the crude oil estimation procedure used until the State reports are complete, see Explanatory Note 2.2.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-64, "Natural Gas Liquids Operation Report." Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.1.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-64, "Natural Gas Liquids Operations Report." Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.1.

**Refinery Production** of LRGs, ethane, and finished petroleum products is reported monthly on survey Form EIA-87, "Refinery Report." Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Refinery production is also reported weekly on survey Form EIA-161, "Refinery Report." See Explanatory Notes 1.2 and 1.3 for survey descriptions and other detail. It should also be noted that refineries do not report production of crude oil, natural gasoline, isopentane, unfractionated stream, plant condensate, or other hydrocarbons and alcohol.

**Imports** of crude oil and petroleum products are reported monthly on Form ERA-60, "Report of Oil Imports into the United States and Puerto Rico," and Form P-133-M-O, "Shipments of Refined Products (including unfinished oils) from Puerto Rico to the United States." In addition, the Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501 and 7505. The most prominent difference between the EIA and Census systems appears in imports of liquefied petroleum gases (LPG), where Census data show a much higher level of imports than Energy Information Administration data. This occurs because the ERA-60 respondent frame was built by monitoring importers of licensed products and because LPGs are not licensed products. Therefore, respondents that only import LPGs have not been identified, and do not report these imports to the Department of Energy. Since these importers are required to file form 7501 with the U.S. Customs Service, EIA obtains data on imports of LPGs from Census Tabulation IM-145. Additional data taken from the IM-145 are relatively small quantities of naphtha and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade and for military offshore use. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the ERA-60 reporting system.

Imports are also reported weekly on survey Form EIA-165, "Imports Report." See Explanatory Notes 1.3, 1.5, and 1.6 for survey descriptions and other detail.

**Stock Withdrawal (+) or Addition (-)** is calculated by subtracting stocks at the end of the month from stocks at the beginning of the month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks and an increase in petroleum supplies distributed for domestic consumption. A negative result (-) would represent a buildup of stocks and reduce petroleum supplies distributed for domestic consumption. For survey forms used to make stock withdrawal or addition calculations see Explanatory Note 2.4.

**Unaccounted-for Crude Oil** is a balancing item that represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production, imports and stock withdrawal or addition, less crude used directly and losses. Crude oil disposition is the sum of exports and refinery input.

Unaccounted-for crude oil is calculated by subtracting crude oil supplies from crude oil disposition. A negative result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used. This calculation is performed for crude oil to ensure that product supplied for crude oil is always zero.

**Crude Oil Used Directly and Losses** is the sum of crude oil losses at refineries, crude oil burned at refineries, and crude oil burned on leases. Crude oil losses and consumption at refineries are reported on Form EIA-87, "Refinery Report." Crude oil burned on leases is reported on Form EIA-90, "Crude Oil Stocks Report." Crude oil burned on leases is divided into two categories: crude burned as residual fuel oil and crude burned as distillate fuel oil. Crude burned on leases appears as a negative supply to crude oil (a reduction in crude oil supplies) and as a positive supply to residual and distillate fuel oil (an increase to these supplies).

## Note 2.2: Domestic Crude Oil Production

Data for the Crude Oil Production System (COPS) are reported to the Department of Energy by each of the individual State conservation agencies, which collect crude oil production values for tax purposes. In addition, the U.S. Geological Survey reports the volume of crude oil that is produced offshore in Federally-owned waters. With the exception of six State conservation agencies, all of these reports are received monthly. After each calendar year, these monthly numbers are updated using the annual reports from the State conservation agencies and the U.S. Geological Survey. The six States that do not report monthly values are Indiana, New York, Ohio, Pennsylvania, West Virginia, and Wyoming. Monthly values are estimated for these States using the individual linear trends of their historical annual crude oil production values.

There is a time lag of approximately 3 to 4 months between the end of the reporting month and the time when the actual values are available for this publication. In order to provide more timely crude oil production estimates, the Department of Energy has established a series of statistical models that forecast the volume of crude oil production based on the historical production patterns. The models use Auto Regressive Integrated Moving Average (ARIMA) to analyze series of monthly crude oil production values collected over several years.

In order to provide detailed crude oil production information on both the PAD District level and for the major producing States, the total United States crude oil production volume was separated into nine distinct groupings. The nine different time series are the monthly reported crude oil production volumes for: (1) all the States in PAD District 1; (2) all the states in PAD District 2; (3) Texas; (4) Louisiana; (5) the States in PAD District 3 excluding Texas and Louisiana; (6) all the States in PAD District 4; (7) Alaska; (8) California; and (9) the States in PAD District 5 excluding Alaska and California. Monthly data collected beginning in January 1973 are used for each of these time series.

A separate ARIMA model is identified for each time series. New model parameters are estimated monthly for each of these nine updated time series. Then, these ARIMA models are used to forecast crude oil production volumes for the month of interest. These values are then aggregated into PAD District and national totals. The forecasts made during 1981 had an average error of less than 0.6 percent compared to the monthly crude oil production volumes eventually reported by the States.

## Note 2.3 Disposition

The components of petroleum disposition are refinery input, exports, and products supplied for domestic consumption.

**Refinery Inputs** of crude oil, NGPL and other liquids are reported monthly on survey Form EIA-87, "Refinery Report." Published inputs of unfinished oils, and motor and aviation gasoline blending components, equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production. Refinery inputs are also reported weekly on survey Form EIA-161, "Refinery Report." See Explanatory Notes 1.2 and 1.3 for survey description and other details.

**Exports** of crude oil and petroleum products are compiled from Census Bureau tabulations EM522 and EM594. Exports include crude oil shipments to Puerto Rico, the Virgin Islands, and the Hawaiian Foreign Trade Zone, which are obtained from refinery receipts reported on Form EIA-87.

**Product supplied** for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, plus crude oil used directly and losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply. Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative when total disposition of that product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported, (2) misreporting or delayed reporting of data, and (3) for calculations on a PAD District basis, incomplete coverage of interdistrict movements data compiled to calculate net receipts.

## Note 2.4 Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-87, "Refinery Report," and Form EIA-90, "Crude Oil Stocks Report." Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in transit is also included. Stocks of crude oil are also reported weekly on Form 161, "Refinery Report," and Form EIA-164, "Crude Oil Stocks Report." Primary stocks of petroleum products are summed from data reported on the Form EIA-64, "Natural Gas Liquids Operations Report," Form EIA-87, "Refinery Report," Form EIA-88, "Bulk Terminal Stocks Report," and Form EIA-89, "Pipeline Products Stocks Report." Primary stocks of petroleum products do not include secondary stocks held by dealers and jobbers, or stocks held by consumers. Petroleum product stocks are also reported weekly on Form EIA-161, "Refinery Report," Form EIA-162, "Bulk Terminal Stocks Report," and Form EIA-163, "Pipeline Products Stocks Report." For survey descriptions and other details see Explanatory Notes 1.1, 1.2, and 1.3.

## Note 2.5 Average Stock Levels

The graphs displaying monthly stock levels of petroleum products, crude oil, motor gasoline, distillate fuel oil, residual fuel oil, liquified petroleum gases and ethane, and other products provide the user with recent data as well as a summary of data from the most recent 3 year period from January through December or from July through June. This summary takes the form of an "average range" that includes seasonal variation determined from a longer time period. The average range represents the historical pattern; it is not a forecast.

These curves are updated every 6 months effective January 1 or July 1 by basing the "average range" on a more recent time period. At that time, each 3-year data series will be adjusted by dropping the first 6 months and including the most recent 6 months.

For each data series, the monthly seasonal factors were estimated by means of a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors were assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported stock levels). The intent of deseasonalization is to remove only seasonal variation from the data. Thus, a deseasonalized series would contain the same trends and irregularities as the original data. For crude oil stocks, the derived seasonal factors were very small relative to crude oil stock levels. Therefore, the seasonal factors for crude oil stock levels were set to zero. The seasonal factors for total petroleum (crude and products), distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane, and other products were derived using monthly data from 1974-1980. For motor gasoline, the seasonal factors were based on monthly data from 1975, 1976, 1978, 1979 and 1980. In 1977, there was virtually no seasonal behavior in motor gasoline stocks. Monthly stock levels stayed at the same high level for the entire year. In addition, the seasonal patterns in 1973 and 1974 appeared to be different from those in recent years. It was therefore assumed that the seasonal patterns in 1973, 1974, and 1977 were not representative of the recent past, and these years were not used in the determination of seasonal patterns for motor gasoline stocks. Because of these differences in the year-to-year seasonal fluctuation of motor gasoline, the evidence for the illustrated seasonal patterns for total petroleum (crude and products), crude oil, distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane, and other products is stronger than is the evidence for the illustrated seasonal patterns for motor gasoline.

In some cases, these seasonal patterns do not show a smooth transition from month to month. For example, the June factor for residual fuel oil is slightly less than the May and July values, making a bump in the curve. As there is little difference in the magnitude of these seasonal factors, it is possible that this variation is due to the small number of observations (7 years) and the data variability.

After seasonal factors are derived, the most recent 3 year period (from January through December or from July through June) is deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard error of the deseasonalized 36 months is calculated adjusting for extreme data points. The width of the "average range" is twice this standard error.

The upper curve of the "average range" is defined as the average plus the seasonal factors plus the standard error. The lower curve is defined as the average plus the seasonal factors minus the standard error.

## Note 2.6 Movements

Movements of crude oil between PAD Districts are reported on Form EIA-170, "Tanker and Barge Report." Petroleum product movements are reported on Forms EIA-170 and EIA-89, "Pipeline Products Report." Net receipts are calculated by summing total movements into and total movements from each PAD District by pipelines, tankers, and barges, and subtracting for the difference. Movements of crude oil by pipeline are not reported. For survey descriptions and other detail, see Explanatory Notes 1.2 and 1.4.

## Note 2.7 Preliminary Monthly Statistics

Data from the Weekly Petroleum Reporting System (Forms EIA-161, 162, 163, 164 and 165) are used to estimate the most recent monthly values for the historical statistics. Since some of the weekly reporting periods overlap 2 adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To calculate monthly estimates of crude oil and petroleum product imports, crude oil input to refineries, and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel and residual fuel) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the 2 weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of earlier of the 2 weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 2.2.

### Note 3 Accuracy of Petroleum Supply Data

Early in 1981, the Energy Information Administration completed an assessment of the accuracy of principal petroleum supply data series. This assessment concentrated on two methods of analysis:

- Comparisons between EIA's final annual estimates published in the *Petroleum Statement Annual (PSA)* and annual estimates from independent sources.

- Comparisons between EIA's final monthly estimates published in the *PSA* and EIA's earlier estimates published in the *Monthly Petroleum Statistics Report* and the *Petroleum Statement, Monthly* (predecessor of the *Monthly Petroleum Statement*).

Selected excerpts from these comparisons are presented below.

#### Comparisons of Annual Estimates

All of the systems that provide data for the *Petroleum Supply Monthly*, except for the weekly systems, try to collect data from the entire universe of their potential respondents. They do not sample, and have no sampling errors. Inaccuracies in the data still occur because of problems such as incomplete lists of respondents, errors in the responses, and conceptual errors in the design of the data systems. Such inaccuracies are hard to identify and even harder to quantify. Some understanding of the overall accuracy of the estimates can be achieved by comparing estimates derived from independent sources of data, as shown in the following tables. Close agreements among annual estimates from several independent sources support the conclusion that the estimates are accurate, and accuracy in the annual estimates implies accuracy in the monthly estimates that comprise the annual estimates.

#### Crude Oil Production

Comparisons among independent estimates of annual crude oil and lease condensate production lead to the conclusion that the *PSA* estimates are probably accurate to within 1 percent.

#### Crude Oil Imports

Comparisons among independent estimates of annual crude oil imports lead to the conclusion that the *PSA* estimates are probably accurate to within 1 percent. This conclusion is supported by a study of EIA and Customs/Census import data performed for EIA.<sup>2</sup>

#### Motor Gasoline Supplied

Comparisons among independent estimates of the annual volume of motor gasoline supplied for domestic use show that differences in the estimates grew between 1977 and 1979. By 1979, the EIA estimate of sales by refiners and the Environmental Protection Agency's estimate of production had grown about 5-7 percent larger than the comparable *PSA*, Lundberg, and American Petroleum Institute (API) estimates. Research conducted by EIA in 1979 and 1980<sup>3</sup> confirmed that the lower

<sup>1</sup>An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0292, June 1981.

<sup>2</sup>Maxima Corporation, *Petroleum Imports Reporting Systems, Preliminary Draft*, (Silver Spring, Maryland: February 1980). Prepared for the Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, Washington, D.C.

<sup>3</sup>Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *An Evaluation of Published EIA Gasoline Supply Estimates* (Washington, D.C.: April 1980).

estimates were inaccurate, and identified changes in the petroleum industry that had an adverse effect on the *PSA* estimate. During 1980, EIA developed and tested improved procedures for collecting petroleum supply data, and implemented them in January 1981. (See Explanatory Note 4.)

### Distillate Fuel Oil Supplied

Comparisons among independent estimates of the annual volume of distillate fuel oil supplied for domestic use lead to the conclusion that the *PSA* estimates are probably accurate to within 1 to 2 percent.

### Residual Fuel Oil Supplied

Comparisons among independent estimates of the annual volume of residual fuel oil supplied for domestic use seem to show sizable and consistent differences between the EIA estimates of sales by refiners and the *PSA* and API estimates. When imports of residual fuel oil by nonrefiners are added to the refiner sales, however, the difference between refiner sales and the *PSA* estimates are narrowed to within 1 percent. The comparisons therefore lead to the conclusion that the *PSA* estimates are probably accurate to within 1 to 2 percent.

### Comparison of Estimates of the Volume of Crude Oil and Lease Condensate Production, 1977-1979

	Estimated Volume of Production in Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Comparative Estimate as a Percent of the <i>PSA</i> Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from Petroleum Statement Annual <sup>b</sup>	3,121	3,178	3,009	///	///	///
Comparative Estimates						
American Petroleum Institute Estimate from API Monthly Statistical Report <sup>c</sup>	3,130	3,214	3,021	100.3%	101.1%	100.4%
Census Estimate from the Annual Survey of Oil and Gas <sup>d</sup>	—	3,148	3,016	—	99.1%	100.2%
Oil and Gas Journal Estimates <sup>e</sup> of Total Production derived from Monthly Data	3,168	3,165	3,005	101.5%	99.6%	99.9%
EIA Estimate from Annual Survey of Oil and Gas Reserves (EIA-23) <sup>f</sup>	3,102	3,144	3,001	99.4%	98.9%	99.7%

/// = Not applicable

— = Not available

<sup>a</sup>Volumes are rounded to the nearest million barrels.

<sup>b</sup>From Table 6 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979.

<sup>c</sup>From issues of the American Petroleum Institute's *Monthly Statistical Report*. The annual values were obtained by summing the monthly values for each of the twelve-month periods.

<sup>d</sup>From Table 1, p.2 of the Bureau of Census' *Annual Survey of Oil and Gas*, 1978.

<sup>e</sup>From issues of the *Oil and Gas Journal*. Monthly estimates are in thousands of barrels per day. They are converted to millions of barrels by dividing by 1,000 and multiplying by the number of days in the reporting period.

<sup>f</sup>From EIA's *U.S. Crude Oil and Natural Gas Reserves 1979 Annual Report* (Table 19, p. 33), *1978 Annual Report* (Table 16, p. 20), and *1977 Annual Report* (Table 22, p.36).

Geographic coverage: the 50 United States and District of Columbia with adjacent areas of the Outer Continental shelf.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

# Comparison of Estimates of the Volume of Crude Oil Imports, 1977-1979

	Volume of Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Comparative Estimates as a Percent of the Primary Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate of Receipts at Ports of Entry (ERA-60) from <i>Petroleum Statement, Annual</i> <sup>b</sup>	2,380	2,320	2,414	///	///	///
<u>Comparative Estimates</u>						
American Petroleum Institute Estimate of Receipts as Reported by Refiners <sup>c</sup>	2,346	2,323	2,360	98.6%	100.1%	97.8%
Customs/Census Estimate of Receipts at Ports of Entry (Customs Forms 7501 and 7502) <sup>d</sup>	2,415	2,338	2,431	101.5%	100.8%	100.7%
EIA Estimate of Inputs of Foreign Crude at Refineries (ETA-87) <sup>e</sup>	2,364	2,334	2,431	99.3%	100.6%	100.7%

/// = Not applicable

<sup>a</sup>Volumes are rounded to the nearest million barrels.

<sup>b</sup>From Table 1 in EIA's *Petroleum Statement Annual* 1977, 1978, 1979. This table also includes imports for the Strategic Petroleum Reserve (SPR) which were 7.5 million in 1977, 58.8 million in 1978, and 24.4 million in 1979.

<sup>c</sup>Estimate equals the sum of the annual estimate of imports derived from API's *Monthly Statistics Report* (which excludes imports for SPR), and the EIA estimates for imports for the SPR which are listed in footnote b above. The annual estimates from API data are equal to the sum of the API monthly estimates weighted by the number of days in each month.

<sup>d</sup>Data on imports to Puerto Rico which are included in the source for these estimates have been excluded from these estimates in keeping with the geographic coverage of the table. Data are from computer printouts of the Bureau of Census Report IM-245-X dated April 3, 1980 (1977 and 1978 data) and December 19, 1980 (1979 data).

<sup>e</sup>Estimate equals refinery inputs of foreign crude plus (minus) stock increases (decreases) of foreign crude. The data for the computation are published in EIA's *Petroleum Statement, Annuals*. The stock changes (all increases) are derived from data on stocks of crude oil at refineries, bulk terminals, and pipelines as reported on Form EIA-90, plus the increase in the SPR. This estimate excludes crude oil imported and not used as refinery input.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

**Comparison of Estimates of the Volume of Motor Gasoline Supplied for Domestic Use, 1977-1979**

	Volume in Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Volume Supplied as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement Annual</i> <sup>b</sup>	2,573	2,711	2,625	///	///	///
<b>Comparative Estimates</b>						
EIA Estimate of Sales by Refiners (P-306) <sup>c</sup>	2,708	2,792	2,671	105.2%	103.0%	101.8%
Environmental Protection Agency Estimate derived from Production Data <sup>d</sup>	2,766	2,851	2,706	107.5%	105.2%	103.1%
Lundberg Surveys, Inc. Estimate of U.S. Motor Gasoline Sales <sup>e</sup>	2,631	2,746	2,656	102.3%	101.3%	101.2%
American Petroleum Institute Estimate of Deliveries <sup>f</sup>	2,579	2,697	2,612	100.2%	99.5%	99.5%

/// = Not applicable

<sup>a</sup>Volumes are rounded to the nearest million 42-U.S. gallon barrels.

<sup>b</sup>Derived from Table 2 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979.

<sup>c</sup>Derived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products* 1977, 1978, 1979.

<sup>d</sup>The estimate shown is derived by substituting EIA Domestic Production values with values of domestic production tabulated from the Environmental Protection Agency Bq. Form 3520-2, "Lead Additive Report for Refineries." The EPA production estimates are 2,694 million barrels in 1977, 2,757 in 1978, and 2,648 in 1979 as compared from a summary sheet provided by Mr. Bob Summerhayes of EPA.

<sup>e</sup>From the mid-June issues of the "National Petroleum News," 1979 and 1980.

<sup>f</sup>API publishes monthly estimates in thousands of barrels per month of the volume of motor gasoline delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of motor gasoline multiplied by the number of days per month.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

**Comparison of Estimates of the Volume of Distillate Fuel Oil (Including Kerosene) Supplied for Domestic Use, 1977-1979**

	Volume in Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Volume Supplied as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement Annual</i> <sup>b</sup>	1,269	1,307	1,275	///	///	///
<b>Comparative Estimates</b>						
EIA Estimate of Sales by Refiners (P-306) <sup>c</sup>	1,282	1,275	1,242	101.0%	97.6%	97.4%
American Petroleum Institute Estimate of Deliveries <sup>d</sup>	1,291	1,300	1,277	101.7%	99.5%	100.2%

/// = Not applicable

<sup>a</sup>Volumes are rounded to the nearest million 42-U.S. gallon barrels.

<sup>b</sup>Derived from Table 2 in EIA's "Petroleum Statement Annual", 1977, 1978, 1979.

<sup>c</sup>Derived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products*, 1977, 1978, 1979.

<sup>d</sup>API publishes monthly estimates in thousands of barrels per month of the volume of distillate and kerosene delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of distillate and kerosene multiplied by the number of days per month.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

**Comparison of Estimates of the Volume of Residual Fuel Oil Supplied for Domestic Use, 1977-1979.**

	Volume in Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Volume Supplied as a Percent of the PSA Estimates		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement, Annual</i> <sup>b</sup>	1,024	1,095	1,109	///	///	///
<b>Comparative Estimates</b>						
EIA Estimate of Sales by Refiners (P-306) <sup>c</sup>	796	832	847	80.8%	79.6%	80.1%
American Petroleum Institute Estimate of Deliveries <sup>d</sup>	1,044	1,101	1,114	102.0%	100.5%	100.4%

/// = Not Applicable

<sup>a</sup>Volumes are rounded to the nearest million 42-U.S. gallon barrels.

<sup>b</sup>Derived From Table 2 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979. Refinery fuel use, subtracted from the figures in the source referenced below, has been reinstated in these estimates.

<sup>c</sup>Derived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products*, 1977, 1978, 1979.

<sup>d</sup>API publishes monthly estimates in thousands of barrels per month of the volume of residual fuel oil delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of residual fuel oil multiplied by the number of days per month.

Geographic Coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

## Comparisons of Monthly Estimates Over Time

Inaccuracies in petroleum data resulting from incomplete or delayed reports from respondents and from data processing errors are usually eliminated from the final PSA estimates. Such inaccuracies can still have important effects on the monthly estimates published in the *Petroleum Supply Monthly* and its predecessors. The following tables compare the initial monthly estimates published in the *Monthly Petroleum Statistics Report* and the *Petroleum Statement, Monthly* with the final monthly estimates published in the PSA. During 1977-1979, the *Monthly Petroleum Statistics Report* was published about 60 days after the end of the reporting month, and the *Petroleum Statement, Monthly* was published about 120-150 days after the end of the reporting month. The tables show that, both in terms of bias and in terms of standard deviation, the later estimates are consistently more accurate than the earlier estimates. In spite of this, the earlier estimates may have been more valuable to users of energy information because of the large difference in timeliness.

For purposes of comparison, the *Petroleum Supply Monthly* is scheduled to be published on about the same time lag as the *Monthly Petroleum Statistics Report*. Caution should be exercised, however, in drawing conclusions from this similarity. The *Petroleum Supply Monthly* uses improved data processing procedures developed and successfully implemented during 1981. In addition, since 1979, EIA has greatly improved the accuracy of its 60-day crude oil production estimates and is making progress in improving the accuracy of its 60-day import estimates.

**Initial Monthly Estimates of Production, Stocks, and Imports of Crude Oil As A Percent of EIA's Final Published Estimates <sup>a</sup>  
January 1977 - December 1979**

	Production During Month		Primary Stocks At End of Month		Imports During Month	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report</i> <sup>b</sup>	# 98.7%	1.6%	# 98.3%	1.4%	# 95.4%	2.4%
EIA's Estimates from the <i>Petroleum Statement, Monthly</i> <sup>c</sup>	# 99.6%	0.6%	100.0%	0.1%	# 98.4%	1.3%

**Initial Monthly Estimates of Products Supplied for Domestic Use as A Percent of EIA's Final Published Estimates <sup>a</sup>  
January 1977 - December 1979**

	Motor Gasoline		Distillate Fuel Oil		Residual Fuel Oil	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report</i> <sup>b</sup>	99.9%	1.3%	99.9%	2.3%	# 97.9%	2.7%
EIA's Estimates from the <i>Petroleum Statement, Monthly</i> <sup>c</sup>	100.0%	0.3%	99.7%	0.5%	99.4%	1.2%

**Initial Monthly Estimates of End-of-Month Primary Stocks As a Percent of EIA's Final Published Estimates <sup>a</sup>  
January 1977 - December 1979**

	Motor Gasoline		Distillate Fuel Oil		Residual Fuel Oil	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report</i> <sup>b</sup>	99.7%	0.8%	99.7%	1.1%	100.1%	0.7%
EIA's Estimates from the <i>Petroleum Statement, Monthly</i> <sup>c</sup>	99.9%	0.2%	100.0%	0.1%	100.1%	0.5%

# Represents a difference from 100% found to be statistically significant at the 95% level of confidence (n = 36).

<sup>a</sup>Final monthly estimates are from the "Petroleum Statement, Annual" for 1977, 1978 and 1979. The mean percent is calculated as follows: each preliminary estimate is first expressed as a percent of EIA's final published estimate, these are then summed and the sum is divided by the number of estimates. The standard deviation is the square root of the quantity computed by summing the squared deviation of the percents from the mean percent and then dividing by the number of percents.

<sup>b</sup>Based on 36 initial estimates appearing in issues dated January 1977 - December 1979.

<sup>c</sup>Based on 36 initial estimates appearing in issues dated January 1977 - December 1979.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

## Note 4 Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting systems.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings throughout 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

### Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. This difference increased to about 4 percent in 1979 and 5 percent in 1980. There are two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference—in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied. EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years. EIA has recently published a study of the quality of these FHWA data.<sup>1</sup>

<sup>1</sup>Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *Error Profile of the Motor Fuel Taxation Data used to Establish and Monitor State Emergency Conservation Targets* (Washington, D.C.: December, 1981).

**Finished Motor Gasoline Product Supplied on Old and New Basis  
(Thousand Barrels per Day)**

	1979				1980			
	EIA Reported	API Recast	EIA Recast	FHWA <sup>1</sup>	EIA Reported	API Recast	EIA Recast	FHWA <sup>1</sup>
Jan	6,830	7,230	7,084- 7,246	6,984	6,323	6,789	6,630- 6,791	6,672
Feb	7,254	7,496	7,389- 7,568	7,538	6,596	6,983	6,831- 7,003	6,830
Mar	7,229	7,414	7,301- 7,463	7,316	6,406	6,753	6,607- 6,768	6,713
Apr	7,055	7,300	7,187- 7,353	7,375	6,800	7,014	6,886- 7,052	6,981
May	7,213	7,429	7,313- 7,475	7,428	6,729	6,954	6,823- 6,984	7,044
Jun	7,191	7,483	7,350- 7,516	7,441	6,657	6,966	6,824- 6,991	7,049
Jul	6,902	7,241	7,105- 7,266	7,299	6,743	6,973	6,960	7,132
Aug	7,330	7,546	7,426- 7,588	7,619	6,648	6,841	6,828	7,090
Sep	6,881	7,122	7,016- 7,262	7,232	6,510	6,692	6,962	6,685
Nov	6,791	7,068	6,956- 7,122	7,142	6,234	6,507	6,516	6,951
Dec	6,730	7,106	6,966- 7,127	7,064	6,632	6,948	6,936	6,993
<b>Average</b>	7,034	7,302	7,183- 7,347	7,309	6,579	6,882	6,806- 6,889	6,925

<sup>1</sup>FHWA gasoline statistics published in their 1979 Table MF-33G, 08-06-80, contain aviation gasoline as well as motor gasoline. Only motor gasoline data are included in published 1980 data. Consequently, the 1979 data shown above were reduced by subtracting aviation gasoline product supplied quantities as published by EIA in the 1979 *Petroleum Statement Annual*. The 1980 FHWA data published in their 1980 Table MF-33GA, August 1981, did not require this adjustment.

### Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oil produced by a refinery is shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981 this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1980 as published (adjusted) and on the same basis as 1981 statistics are now being completed (unadjusted) to permit comparison between 1980 and 1981 data series. Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

**Adjusted and Unadjusted Refinery Production, and Unadjusted Product Supplied of Distillate and Residual Fuel Oils, by Month for 1979 and 1980 (Thousand Barrels Per Day)**

**1979**

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,043	3,108	65	4,646	1,912	1,946	34	3,594
Feb.	2,888	2,945	57	4,869	1,792	1,822	30	3,625
Mar.	3,019	3,026	7	3,671	1,719	1,723	4	3,243
Apr.	2,945	2,978	32	3,048	1,639	1,656	17	2,524
May	3,066	3,093	27	3,025	1,586	1,600	14	2,517
Jun.	3,153	3,187	35	2,743	1,548	1,566	18	2,601
Jul.	3,305	3,344	38	2,601	1,575	1,594	20	2,471
Aug.	3,321	3,359	38	2,799	1,584	1,603	20	2,570
Sep.	3,354	3,306	-48	2,599	1,627	1,602	-25	2,584
Oct.	3,251	3,217	-34	3,085	1,629	1,612	-17	2,523
Nov.	3,239	3,200	-39	3,208	1,736	1,716	-20	2,795
Dec.	3,221	3,238	17	3,725	1,894	1,903	9	3,022
Average	3,152	3,169	16	3,327	1,687	1,695	8	2,834

**1980**

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,013	3,093	80	3,794	1,771	1,812	41	3,108
Feb.	2,766	2,888	122	3,834	1,773	1,836	63	3,168
Mar.	2,557	2,690	133	3,312	1,584	1,652	68	2,726
Apr.	2,460	2,554	94	2,729	1,595	1,643	48	2,492
May	2,474	2,610	136	2,538	1,509	1,579	70	2,305
Jun.	2,646	2,721	75	2,392	1,575	1,613	38	2,359
Jul.	2,689	2,783	94	2,343	1,480	1,528	48	2,339
Aug.	2,461	2,582	121	2,258	1,444	1,506	62	2,348
Sep.	2,686	2,726	40	2,627	1,495	1,516	21	2,380
Oct.	2,589	2,650	61	2,981	1,512	1,543	31	2,258
Nov.	2,703	2,823	120	3,069	1,579	1,641	62	2,513
Dec.	2,891	3,052	161	3,776	1,660	1,743	83	2,762
Average	2,661	2,764	103	2,969	1,580	1,634	54	2,562

**Total Petroleum Products**

The imbalance between the supply and disposition of unfinished oils is now reported as part of the reclassified products (line 39) in the U.S. Petroleum Balance (Table 1). Imbalances between the supply and disposition of gasoline blending components comprise the remainder of the reclassified in Table 1. These imbalances are reported as negative product supplied in the Other Liquids section of the table of Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

## Note 5 Notes on Tables

**5.1 Crude Oil and Petroleum Products Overview** statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (-), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.

- Natural Gas Plant Production is the sum of Natural Gas Plant Liquids and Finished Petroleum Products Field Production in Table 4.

- Petroleum Products Imports is the sum of Natural Gas Plant Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.

- Petroleum Products Exports is the sum of Natural Gas Plant Liquids and LRGs, Other Liquids, and Finished Petroleum Products Exports in Table 4.

- Total Crude Oil and Petroleum Products Ending Stocks appear in thousands of barrels in Table 2.

**5.2 Crude Oil Supply and Disposition** statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Imports Gross Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (-), Unaccounted For Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.

- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousands of barrels in Table 1.

- Total Crude Oil Ending Stocks appear in thousands of barrels in Table 2.

- Total Imports appear in Table 4.

**5.3 Finished Motor Gasoline Supply and Disposition** statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.

- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.

- Ending Stocks appear in thousands of barrels in Table 2.

**5.4 Distillate and Residual Fuel Oil Supply and Disposition** statistics on the referenced lines appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Crude Used Directly, Exports, and Product Supplied appear as labeled in Table 4.

- Ending Stocks appear in thousands of barrels in Table 2.

**5.5 Liquefied Petroleum Gases and Ethane** statistics represent the aggregation of statistics on ethane, propane, butane, butane-propane mixtures, ethane-propane mixtures, and isobutane. The statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousands of barrels in Table 2.

**5.6 Other Petroleum Products Supply and Disposition** statistics represent the aggregation of statistics on natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil. The statistics on the referenced line are aggregated from Table 4 of the Detailed Statistics, except where noted.

- Total Production is the aggregated sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.
- Ending stocks are aggregated from ending stocks in thousands of barrels in Table 2.

#### **Note 5.7 Table 1. U.S. Petroleum Balance**

- Lines (1) through (3) of Table 1: Crude oil (including lease condensate) production for "Alaska," "Lower 48 States," and "Total U.S." are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 2.2), and taking the difference to equal production in the lower 48 states.
- Line (5) of Table 1: SPR imports are reported on Survey Form ERA-60.
- Line (12) of Table 1: "Total Other Sources" equals crude oil stock withdrawal (+) or addition (-) plus unaccounted for crude oil plus crude used as fuel and losses in Table 2.
- Line (14) of Table 1: Natural gas plant liquids (NGPL) "Production" equals field production of natural gas plant liquids (NGPL) plus field production of finished petroleum products in Table 2.
- Line (15) of Table 1: NGPL "Imports" equals the sum of the imports of natural gasoline and isopentane, unfractionated stream, and plant condensate imports in Table 2.
- Line (16) of Table 1: NGPL "Stock Withdrawal (+) or Addition (-)" is equal to the sum of stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate in Table 2.
- Line (17) of Table 1 equals the sum of lines (14), (15), and (16) of Table 1.
- Line (18) of Table 1: unfinished oils and gasoline blending components "Stock Withdrawal (+) or Addition (-)" equals stock withdrawal (+) or addition (-) for other hydrocarbons and alcohol, for unfinished oils, motor gasoline blending components, and aviation gasoline blending components.
- Line (20) of Table 1: "Other Hydrocarbons and Alcohol New Supply" equals the field production of same in Table 2.
- Line (21) on Table 1: "Refinery Processing Gain" is a balancing item equal to total refinery production minus total refinery input in Table 2.
- Line (22) on Table 1: "Crude Used Directly" equals the sum of crude oil used directly as distillate and residual fuel oils in Table 2.
- Line (23) of Table 1: "Total Other Liquids" equals the sum of lines (18) through (22) of Table 1.
- Line (24) of Table 1: "Total Production of Products" equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or

addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil used as distillate and residual fuel oils in Table 2.

- Line (25) of Table 1: "Gross Imports of Refined Products" equals imports of LPG and ethane plus imports of finished petroleum products in Table 2.

- Line (26) of Table 1: "Exports of Refined Products" equals exports of LPG and ethane plus exports of finished petroleum products in Table 2.

- Line (27) of Table 1: "Net Imports of Refined Products" equals the difference between lines (25) and (26) of Table (1).

- Line (28) of Table 1: "Total New Supply of Products" equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil used as distillate and residual fuel oils; plus imports of LPG and ethane and finished petroleum products; minus exports of LPG and ethane and finished petroleum products in Table 2.

- Line (29) of Table 1: "Refined Products Stocks Withdrawal (+) or Addition (-) equals the sum of stock withdrawal (+) or addition (-) for LPG and ethane, and finished petroleum products in Table 2.

- Line (30) of Table 1: "Total Petroleum Products Supplied for Domestic Use" equals total products supplied in Table 2.

- Lines (31) through (37) of Table 1 equal the respective products supplied in Table 2.

- Line (38) of Table 1: "Other Products Supplied" equals the sum of natural gasoline and isopentane, unfractionated stream, plant condensate, aviation gasoline, naphtha < 400 Deg. F for petrochemical feedstock uses, other oils > 400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, coke, asphalt, road oil, still gas, and miscellaneous products supplied in Table 2.

- Line (39) of Table 1: "Total Reclassified" is a balancing item equal to the sum of unfinished oils, motor gasoline blending components, and aviation gasoline blending components products supplied in Table 2.

- Line (40) of Table 1: "Total Product Supplied" is equal to total products supplied in Table 2.

- The sum of lines (41) and (42) of Table 1, stocks of "Crude Oil and Lease Condensate (Excluding SPR)" and stocks held by the "Strategic Petroleum Reserve," equals ending stocks of crude oil in Table 2. SPR stocks are reported on Form EIA-90.

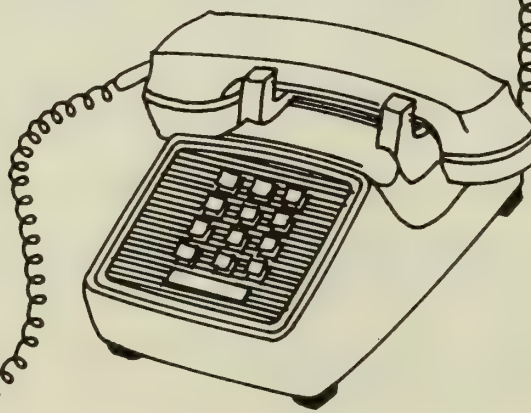
- Line (46) of Table 1, stocks of "Refined Products," equals the sum of LPG and ethane and finished petroleum product stocks in Table 2.

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May 1982

# Petroleum Supply Monthly





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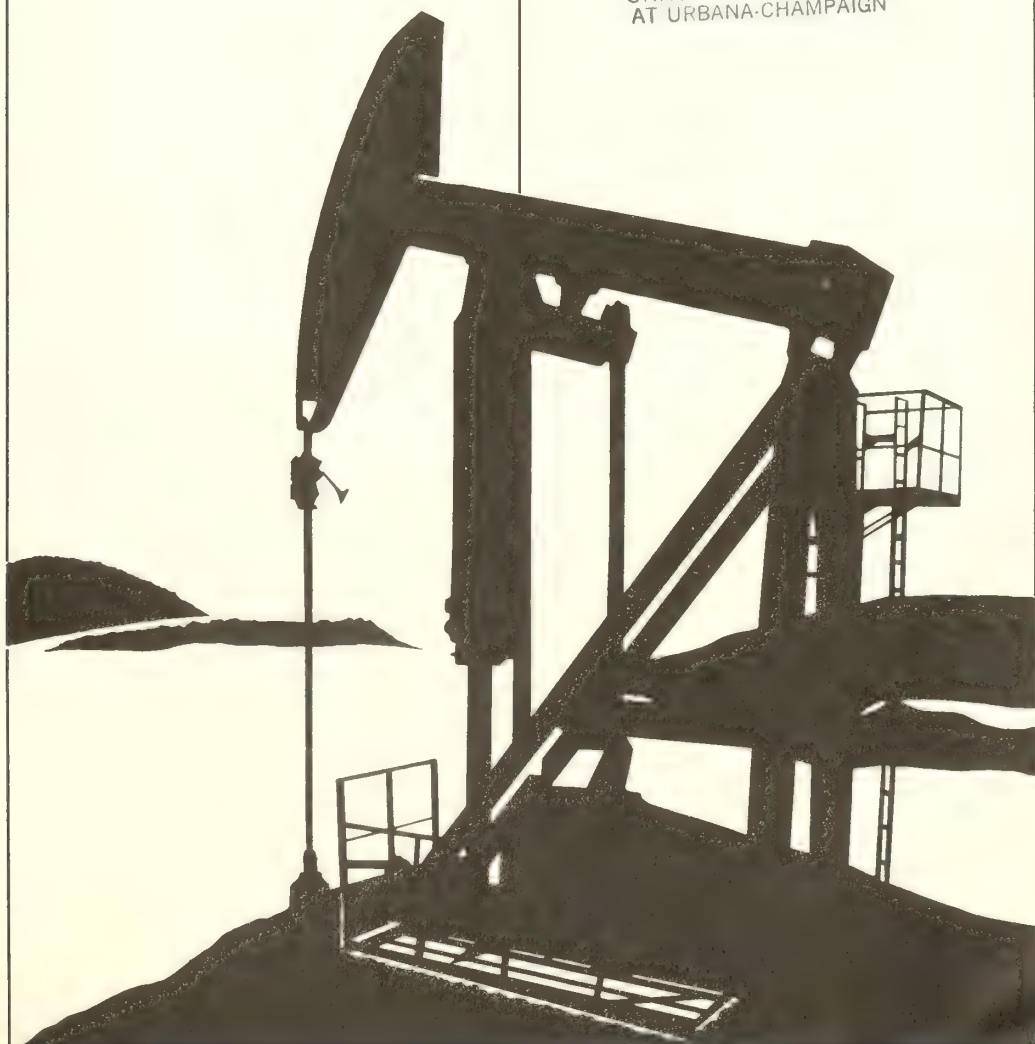
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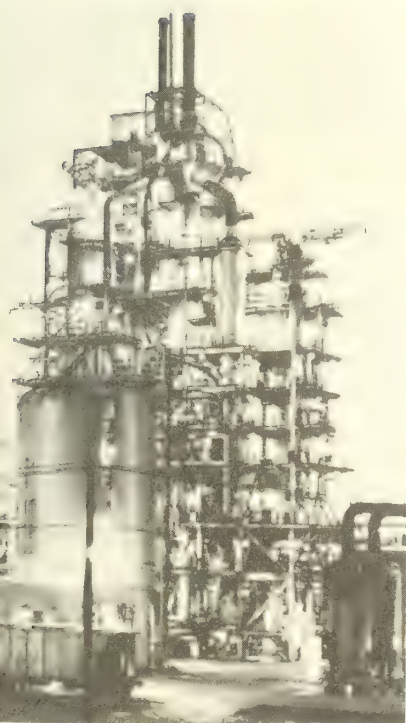
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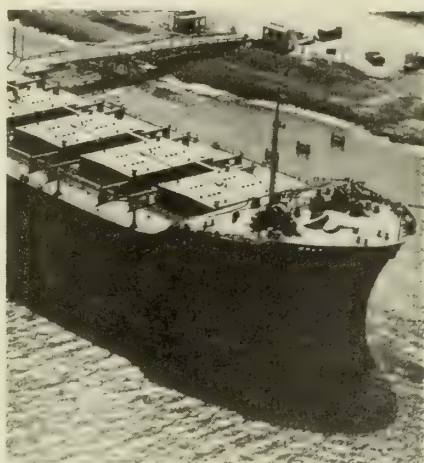
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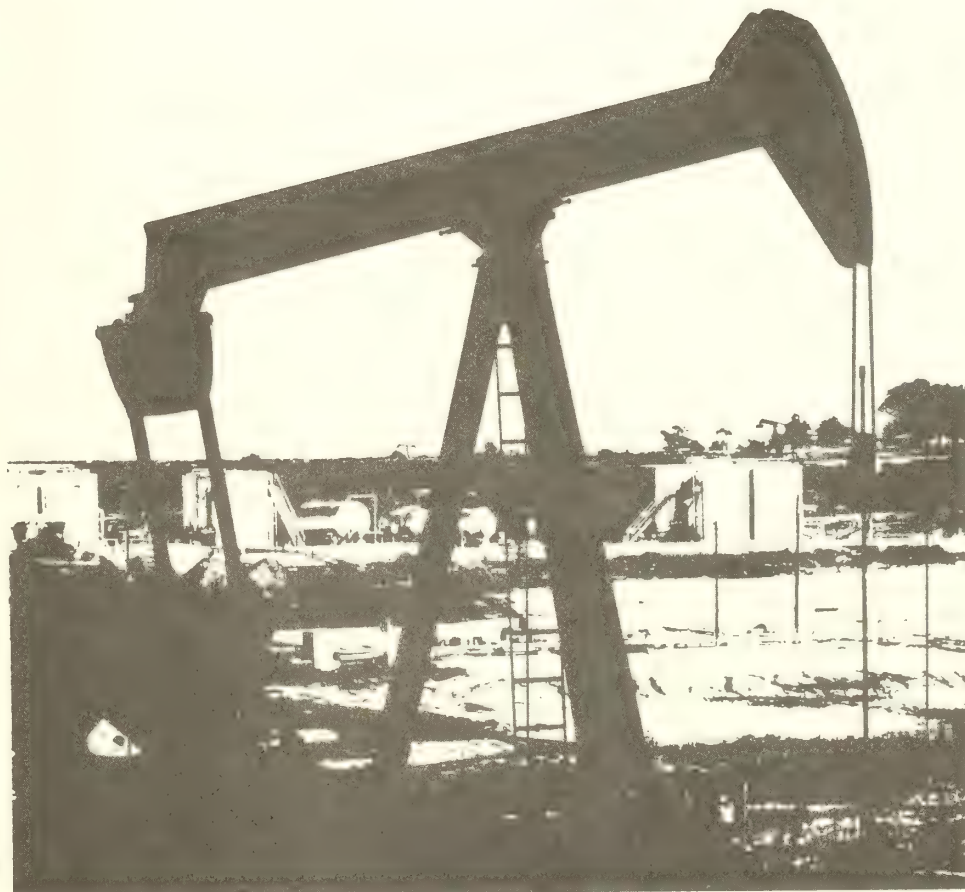
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# Introduction



## About the Petroleum Supply Monthly

The **Petroleum Supply Monthly** (PSM) replaces four Energy Information Administration (EIA) monthly petroleum publications:

- *Monthly Petroleum Statistics Report* (MPSR)
- *Monthly Petroleum Statement* (MPS)
- *Supply, Disposition, and Stocks of All Oils by Petroleum Administration for Defense Districts and Imports into the United States, by Country* (PADD Report)
- *Availability of Heavy Fuel Oils by Sulfur Level* (Sulfur Report)

Care has been taken to insure that all the important information from the four consolidated publications is included in the PSM. The PSM displays these statistics in a comprehensive and cohesive manner, and provides readers with improved explanations of the data.

Articles designed to help readers understand and interpret petroleum statistics will highlight the PSM. These articles may focus upon a seasonal event such as the availability of motor gasoline for the summer driving season, or upon a trend such as the reduced utilization and shutdown of domestic refineries as consumption of petroleum products decreases.

The **Petroleum Supply Monthly** is designed to be convenient for both casual observation and serious analysis. For readers who want to know how the volume of petroleum products being supplied to the domestic market compares with previous trends, the Summary Statistics section lists monthly and annual data series and displays them graphically. For a more detailed view of the current situation, energy analysts can study petroleum supply and disposition statistics for a broad range of products in the Detailed Statistics section. As a special service, preliminary monthly statistics derived from EIA's weekly reporting systems are presented with the Summary Statistics.

The Explanatory Notes present objective information describing data collection, estimation, data quality, changes to data collected and interpretation of tables. Industry terminology and product definitions are listed alphabetically in the Glossary.

The *Petroleum Supply Monthly* (PSM) is prepared by the Petroleum Supply Division, Office of Oil and Gas, Energy Information Administration, Department of Energy.

**NOTE:** The article on "Timeliness and Accuracy of Selected Monthly Petroleum Supply Data" and the special articles—"Focus on Motor Gasoline Statistics" and "Focus on Crude Oil Production Data"—which appeared in the April 1982 issue of this publication, were prepared in the Petroleum Supply Division, Energy Information Administration, by Dr. Nancy Kirkendall.



# **Petroleum Focus**



**“Motor gasoline supplies appear to be adequate to meet projected demand of between 6.6 and 7.0 million barrels per day for the summer driving season.”**



## Motor Gasoline Outlook: Summer 1982

Motor gasoline supplies appear to be adequate to meet projected demand for the summer 1982 driving season, even if there is a drop in prices, a slight increase in seasonal consumption, and a smaller-than-expected increase in the overall efficiency of the vehicles currently on the road. Although current stock levels are low, they should be sufficient, in combination with ample crude oil stocks and excess refining capacity, to serve as a buffer against seasonal demand for gasoline.

According to the Energy Information Administration's *Short-Term Energy Outlook* (February 1982), demand for motor gasoline this summer<sup>1</sup> will average between 6.6 and 7.0 million barrels a day (between 3 percent above and 3 percent below the demand during the same period last year).<sup>2</sup> Motor gasoline demand reached its peak in 1978 and declined during each of the following 3 years: it decreased 5.1 percent between 1978 and 1979, 7 percent between 1979 and 1980, and 4 percent between 1980 and 1981.<sup>3</sup> This decline may not continue in 1982 if the effects of decreased real prices and slightly increased real income offset the effects of improved efficiency in the vehicle fleet. However, even if demand reaches the highest levels projected for the summer of 1982, supplies appear to be sufficient to meet it.

Refinery production, withdrawals from inventories, and imports are the major components of the motor gasoline supply. In general, normal demand is met by refinery production; sudden increases in demand are met by stock withdrawals and by imports. During the summer of 1981, motor gasoline demand averaged 6.8 million barrels a day. Refinery production, at 6.5 million barrels a day, accounted for 94 percent of this quantity; stock withdrawals accounted for 4 percent, and imports accounted for 2 percent. During the first quarter of 1982, refinery output averaged 6.0 million barrels a day, a level which represents about 88 percent of the projected summer demand.<sup>4</sup> In early 1982, refining capacity utilization remained low, while crude oil stocks at refineries were at

levels close to those reported a year ago. These crude stock levels, in combination with the availability of excess refining capacity, will allow for increased motor gasoline production should it be needed. Motor gasoline inventories during the first quarter of 1982 averaged 10 percent below last year's levels but remain within the average range of inventories over the past 3 years.<sup>5</sup> Projected summer inventory levels also fall within this historical range.

Consumption during the summer of 1982 is not projected to fall below 1981 levels. This projection is based upon two assumptions: that real prices (adjusted for inflation) will continue to decline, and that there will be smaller-than-expected increases in overall vehicle fleet efficiency due to the retention of older cars. The 1982 mid-price forecasts presented in the February 1982 *Short-Term Energy Outlook* assume that real motor gasoline prices will decline 8 percent from 1981 levels. Real prices are not expected to increase during the summer. Nominal prices of motor gasoline (i.e., the price the consumer sees at the pump) have been falling steadily since March 1981. Gasoline prices declined over the last year, mainly because of the steady decrease in crude oil prices resulting from a lack of product demand. Faced with high inventories and the cost of carrying them, oil companies have started giving rebates to dealers. This action has triggered dealer competition for certain grades and types of services. For these reasons, the increases in the nominal price of gasoline, which usually occur during the summer, may not occur or may be much smaller than normal in 1982.

<sup>1</sup>Defined as June through August.

<sup>2</sup>See *Short-term Energy Outlook* for description of forecast methodology. All projections cited here are from the EIA *Short-Term Energy Outlook* (February 1982).

<sup>3</sup>Motor gasoline and distillate and residual fuel oils product supplied figures for 1979 and 1980 have been recast to account for data system changes in 1981. See Explanatory Note 4.

<sup>4</sup>For historical data, see "Summary Statistics" section of this publication.

<sup>5</sup>See graph P. 23, "Motor Gasoline Ending Stocks, Monthly."

This article was prepared by Debra Paxson of the Short-Term Information Division, Energy Information Administration.

## Gasoline Use in the United States

***“The current decline in gasoline consumption is primarily the result of long-term changes in the fuel economy of vehicles . . . This downward trend is not likely to be reversed by short-term changes in prices and income.”***

Few countries in the world are as dependent on gasoline as the United States. In 1980, 220 million Americans used about 101 billion gallons (2.4 billion barrels) of gasoline, just over 450 gallons (about 11 barrels) per capita. During 1979, the United States consumed 46 percent of gasoline consumed worldwide. Although the United States is a major consumer of all petroleum products, gasoline is the only fuel for which the United States so dominates world consumption. U.S. consumption of all petroleum products is only 28 percent of the world total and is even less for major products other than gasoline. The United States uses 26 percent of the jet fuel and kerosene consumed in the world, 22 percent of the distillate fuel oil, and 17 percent of the residual fuel oil.<sup>1</sup>

U.S. gasoline consumption often is compared inappropriately to that of Japan and of Western Europe. U.S. gasoline consumption per capita is about four

achieve the same degree of interaction among people.

Largely because of the denser settlement patterns, people in some Western industrialized countries rely more on walking and on energy-efficient, non-gasoline-consuming transportation. Some countries traditionally have regarded gasoline as a luxury rather than as a necessity and have placed substantial taxes on it, often more than a dollar a gallon. As a result, U.S. gasoline prices are among the lowest in the world compared to prices in other petroleum importing countries. These differences in price and in population density, which tend to reinforce each other, probably explain the large differences in the amount of gasoline used by the United States and by the rest of the industrialized world.

Gasoline consumption in the United States has increased steadily since 1919, the year when the Bureau of Public Roads began collecting data on motor fuel use.<sup>3</sup> From that date until the present there have been only four periods in which annual highway motor fuel use has declined: the Depression (1932-33), World War II (1942-43), the Arab-OPEC Oil Embargo (1974), and the period from 1978 through 1981.

Demand, at least in the short run, is not particularly responsive to small changes in price or economic conditions. Despite economic recessions in 1938, 1945, 1949, 1954, 1958, 1961, 1970, and 1975, gasoline use continued to increase.<sup>4</sup>

During those years steady population growth and growing vehicle stocks were apparently sufficient to overcome income declines. Until 1973, real gasoline prices were stable or gradually declining. Even when prices jumped substan-

times that of European countries with similar levels of income.<sup>2</sup> A common explanation for the difference is that Americans have a preference for large automobiles and automobile travel. A more fundamental explanation is that the average population density in the United States is one-tenth that of Europe, so much more travelling is required to

This article was prepared by David L. Greene, Oak Ridge National Laboratories.

<sup>1</sup>U.S. Department of Energy, EIA 1980 *International Energy Annual*, 1981, Table 18.

<sup>2</sup>*International Energy Annual*, Table 1.

<sup>3</sup>These motor fuel use data include perhaps 2 percent or less diesel and other special fuels. Separate gasoline statistics do not exist prior to 1949.

<sup>4</sup>EIA *Annual Report to Congress*, 1980 Vol. Two: Data, Table 28; Dept. of Interior, Bureau of Mines, *Minerals Yearbook*, 1939, 1946, 1950.

*“More than 90 percent of  
the gasoline consumed in  
this country is used  
by cars and  
light vehicles...”*

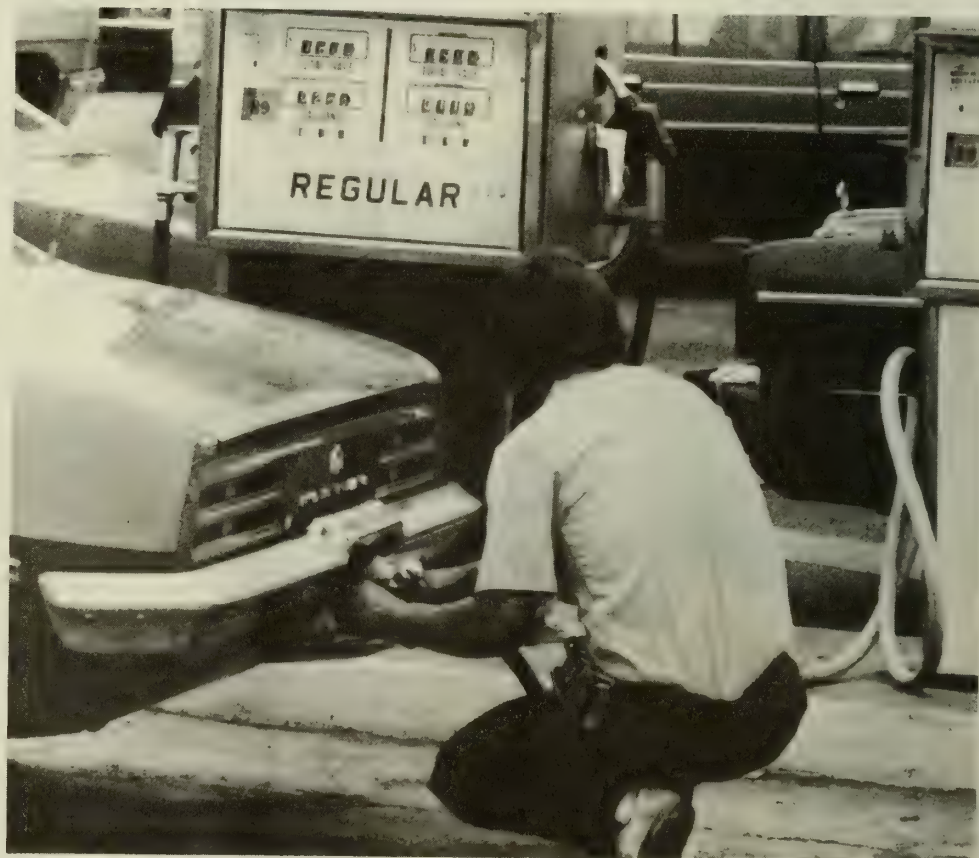
tially in 1973 through 1974, consumption decreased only slightly. A large part of that small decline, perhaps a quarter to a half, can be attributed to shortages associated with the Arab-OPEC oil embargo.

A contributing factor for the short-term stability of gasoline demand is that gasoline use, like most energy consumption, is associated with a capital stock of energy consuming durable goods—the stock of motor vehicles and other gasoline-powered equipment. More than 90 percent of the gasoline consumed in this country is used by cars and light trucks (under 10,000 pounds gross vehicle weight).

More than 141 million light duty vehicles were in use in the United States in 1981.<sup>5</sup> The total value of this stock is over \$400 billion. Because these vehicles have median lifetimes of 10-15 years, the size and composition of the vehicle fleet

change only gradually from one year to the next. However, as the following article on vehicle characteristics suggests, the gradual change in the motor vehicle fleet composition has contributed to substantial changes in gasoline consumption patterns in the United States. The steady fuel efficiency improvement in new cars since 1975, which is likely to persist through 1985, has generated a long-term downward pressure on gasoline demand. In the past, short-term declines in gasoline use have been caused by economic depression, higher prices, shortages, or wartime rationing. The current decline is primarily the result of long-term changes in the fuel economy of vehicles. Because of the inertia in the capital stock of vehicles, this downward trend is not likely to be reversed by short term changes in prices and income.

<sup>5</sup>Motor Vehicle Manufacturers Association, *Motor Vehicle Facts and Figures '81*, p. 22.



# The Impact of Changing Vehicle Characteristics and Use on Motor Gasoline Demand

## Introduction

During the 9 years since the Arab-OPEC Oil Embargo there have been substantial changes in the characteristics and efficiency of vehicles driven in the United States. During those years, the fuel economy of new cars has been improved, the number of diesel-powered cars in the vehicle fleet has increased steadily, and patterns of vehicle use have changed. These changes have had a major impact on the relative demand for fuels and have contributed to the reductions in gasoline demand which have occurred in recent years.<sup>1</sup>

## New-Car Fuel-Use Improvement

Cars and light trucks (under 10,000 pounds gross weight) account for over 90 percent of the gasoline use in the United States. About 70 percent of the gasoline use is accounted for by cars alone. Because the vehicle fleet is large and represents a substantial capital investment, its composition changes slowly. Any improvement in new-car efficiency will not cause dramatic improvement in the overall efficiency of vehicles currently on the road. Since the passage of the Energy Production and Conservation Act in 1975 (EPCA), domestic automobile manufacturers have been required to improve the fuel efficiency of their new vehicles. The mileage-per-gallon (MPG) of new cars has improved dramatically since 1974, and fleet fuel economy has increased slowly but steadily (Exhibit 1).

Between 1975 and 1980, the EPA-rated efficiency of new cars increased from 13.0 to 22.3 miles per gallon.<sup>2</sup> The average annual growth rate in the new-car efficiency was about 11.4 percent a year. During the same 5-year period, the estimated overall efficiency of the vehicle fleet grew much less quickly. It showed a growth rate of about 1.6 percent a

year, or an increase from an average of 13.7 miles per gallon (MPG) in 1975 to an average of 15.2 MPG in 1980.<sup>3</sup> The estimated fleet efficiency in 1981 was about 15.7 MPG, an improvement of about 4 percent over 1980. In 1982, the projected improvement in fleet efficiency could be about 3.4 percent; this would translate into an average fleet mileage-per-gallon for 1982 of 16.3.<sup>4</sup>

A slowdown in new-car sales and the resulting retention of older cars may curtail the improvement in vehicle fleet efficiency during 1982. Less than one-tenth of the vehicle fleet is replaced with new cars in any given year, and the percentage seems to be declining. In 1970 about 8 percent of all passenger cars were under 1 year old. In 1980, about 6 percent of all cars were under 1 year old. As a result, the average age of cars increased from 5.5 years in 1970 to 6.6 years in 1980.<sup>5</sup> During 1982, the average age of the vehicle fleet is likely to increase.

If new car efficiency continues to improve as projected, fleet fuel economy will increase even more quickly each year through 1985. In fact, the Energy Production and Conservation Act (of 1975) sets standards for Corporate Average Fuel Economy requiring a sales-weighted new-car efficiency of 27.5 MPG by 1985.

## Increase in Diesel-Powered Vehicles

Since 1978, sales of diesel cars and small trucks have increased dramatically contributing to the decline in gasoline demand. Before 1978, diesel cars accounted for less than one-tenth of 1 percent of the total passenger car fleet. In 1978, 167 thousand diesel cars were sold; in 1981,

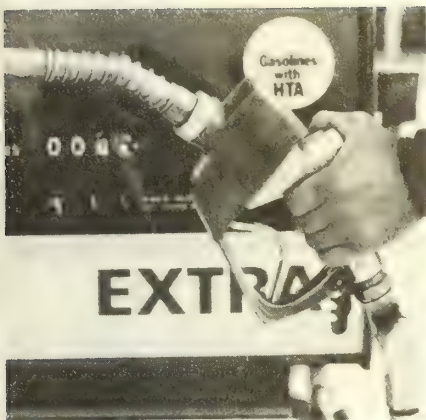
<sup>1</sup>See Figure on "Products Supplied, Annual," p. 22.

<sup>2</sup>U.S. Environmental Protection Agency, *Light Duty Automotive Fuel Economy—Trends Through 1981*, Table II-8.

<sup>3</sup>Federal Highway Administration, *Highway Statistics, 1975-80*, Table VM-1.

<sup>4</sup>Energy Information Administration, *Short-Term Energy Outlook*, February 1982, p. 13.

<sup>5</sup>Motor Vehicle Manufacturers Association, *Motor Vehicle Facts And Figures '81*, p. 22.



“Between 1975 and 1981, the average fuel economy of the fleet has gone from 13.7 to 15.7 miles per gallon.”

#### Sources for Exhibit 1:

1. J. D. Murrell, J. A. Foster and D. M. Brister, Environmental Protection Agency. *Passenger Car and Light Truck Fuel Economy Trends through 1980*, SAE Paper #800853, 1981.

2. U.S. Department of Energy, Highway Fuel Consumption Model, 4th Quarterly Report, July 1981. (Calculated using EPA fuel economy values. It should be noted that EPA new car fuel economy values for 1979 and 1980 are calculated using manufacturers' sales projections, while on-road fuel economy is based on actual sales data.)

3. U.S. Department of Transportation, Federal Highway Administration statistics.

573 thousand diesel cars were sold;<sup>6</sup> diesel cars accounted for 1 percent of the fleet. Despite a general decline in new-car sales in 1981, sales of diesel-powered cars increased by 31.1 percent over 1980 levels. The Oak Ridge National Laboratory projects that sales of diesel fuel will reduce motor gasoline demand by between 1 and 2 percent in 1982 and by about 5 percent by 1985.

#### New Patterns of Vehicle Use

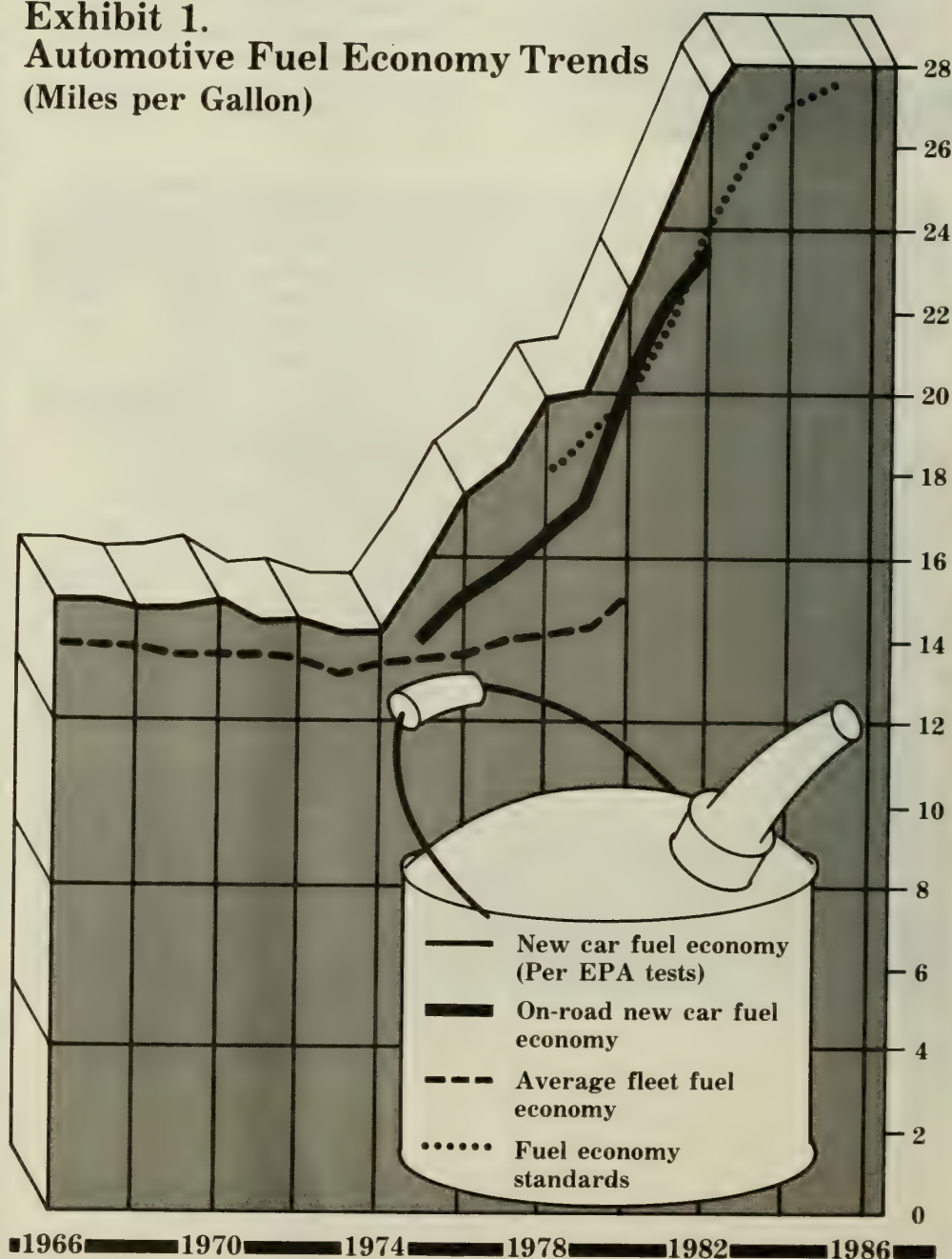
Changes in patterns of travel and vehicle use can affect motor gasoline consumption much more quickly than changes in fleet composition. Historically, vehicle

use, as measured in vehicle-miles-travelled (VMT), has increased steadily from year to year. However, from early 1979 through the end of 1980 VMT declined—a decrease attributed to the Iranian crude oil supply cut-back, associated gasoline shortages, and gasoline price increases. During 1981, with supplies ample and prices beginning to drop, vehicle use increased again (Exhibit 2).<sup>7</sup> This increase will probably continue in 1982 since supplies of gaso-

<sup>6</sup>Ward's Automotive Yearbook, 1981, p. 71.

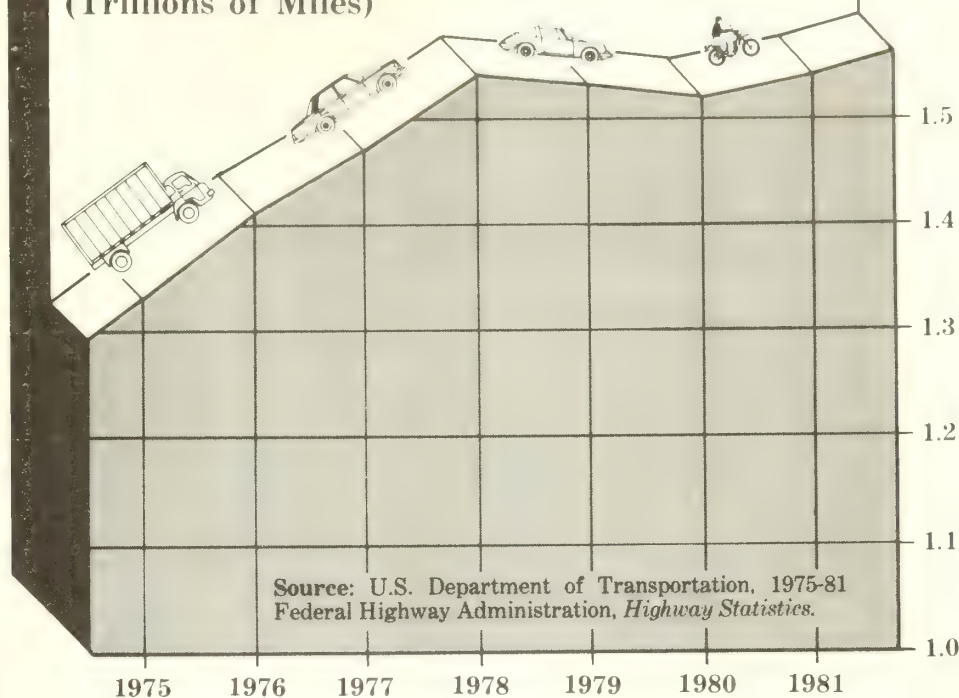
<sup>7</sup>U.S. Dept. of Transportation, Federal Highway Administration, *Traffic Volume Trends, 1975-1981*, Table 3.

**Exhibit 1.**  
**Automotive Fuel Economy Trends**  
(Miles per Gallon)



“Changes in patterns of travel and vehicle use can affect motor gasoline consumption much more quickly than changes in fleet composition.”

**Exhibit 2.**  
**Vehicle Miles of Travel for All Motor Vehicles, 1975-1981**  
(Trillions of Miles)



line are ample for the season and since real prices are expected to remain stable or decrease.

In subsequent years, if the economy improves and new-car sales pick up, the annual VMT may grow by as much as 1.5 to 2.0 percent a year.

### Unleaded Gasoline Demand

The Clean Air Act of 1970, as amended, mandated standards for automobile emissions that have resulted in significant growth in the use of unleaded gasoline. This shift affects the petroleum marketing and distribution system and refinery configuration. In 1977, 33 percent of the vehicles on the road used unleaded gasoline, creating a demand for unleaded gasoline of 2.0 million barrels a day, or about 28 percent of total gasoline demand. In 1981, 56 percent of the vehicles on the road used unleaded gasoline, creating a demand for unleaded gasoline of 3.3 million barrels a day, or about 50 percent of total demand.<sup>8</sup> Growth in demand for unleaded gasoline is expected to continue as sales of new cars requiring unleaded gasoline continue. However, the decreased rate of new-car sales

and the retention and increased use of older cars have slowed this growth over the past year.

Nevertheless, unleaded demand, relative to total demand, is expected to increase somewhat during 1982, to about 3.7 million barrels a day, or about 55 percent of total gasoline demand.<sup>9</sup>

### Conclusion

Gasoline demand is influenced by a variety of factors. Vehicle efficiency improvements and switching to diesel fuel contribute to lower gasoline demand. In contrast, increases in miles driven contribute to gasoline use increases. In 1982, these influences appear to be in balance, and demand for gasoline is expected to be about the same as it was last year.

<sup>8</sup>For demand statistics, see the "Summary Statistics" section of this publication.

<sup>9</sup>Energy Information Administration, *Short-Term Energy Outlook*, February 1981, p. 14.



## Summary Statistics



# Crude Oil<sup>1</sup> and Petroleum Products Overview

		Field Production			Stock Withdrawal <sup>2</sup>			Ending Stocks <sup>3</sup>
		Total Domestic <sup>4</sup>	Crude Oil	Natural Gas Plant Production	Crude Oil <sup>5</sup>	Petroleum Products	Petroleum Products Supplied	Crude Oil <sup>5</sup> and Petroleum Products
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	10,975	9,208	1,738	11	-146	17,308	1,008
1974	AVERAGE	10,498	8,774	1,688	-62	-117	16,653	1,074
1975	AVERAGE	10,045	8,375	1,633	-17	-145	16,322	1,133
1976	AVERAGE	9,774	8,132	1,603	-39	96	17,461	1,112
1977	AVERAGE	9,913	8,245	1,618	-170	-378	18,431	1,312
1978	AVERAGE	10,328	8,707	1,567	-78	172	18,847	1,278
1979	AVERAGE	10,179	8,552	1,584	-148	-25	18,513	1,341
1980	January	10,377	8,675	1,648	-594	270	18,851	1,351
	February	10,402	8,705	1,656	-292	563	18,817	1,343
	March	10,303	8,698	1,568	-47	-99	17,377	1,348
	April	10,356	8,685	1,630	-412	-229	16,784	1,367
	May	10,298	8,635	1,615	-117	-520	16,238	1,387
	June	10,164	8,554	1,561	65	-869	16,187	1,411
	July	10,113	8,547	1,524	88	-556	16,008	1,425
	August	9,974	8,414	1,519	-274	-473	15,753	1,449
	September	10,184	8,619	1,515	307	-259	16,598	1,447
	October	10,092	8,532	1,516	-191	756	16,995	1,430
	November	10,109	8,495	1,571	-8	-84	16,702	1,432
	December	10,204	8,606	1,560	304	993	18,410	1,392
	AVERAGE	10,214	8,597	1,573	-98	-42	17,056	
1981	January	10,168	8,533	1,595	-192	1,139	18,288	1,396
	February	10,250	8,598	1,615	-318	258	16,930	1,398
	March	10,217	8,601	1,581	-490	235	15,838	1,405
	April	10,133	8,543	1,551	-777	180	15,280	1,423
	May	10,115	8,496	1,554	-354	-405	15,196	1,447
	June	10,260	8,616	1,579	-98	396	15,996	1,438
	July	10,021	8,422	1,547	-334	147	15,713	1,444
	August	10,202	8,574	1,582	508	-977	15,236	1,458
	September	10,293	8,598	1,630	-359	-385	15,619	1,481
	October	10,212	8,547	1,601	-761	516	15,840	1,488
	November	10,264	8,595	1,615	-352	-245	15,508	1,506
	December	10,274	8,624	1,605	-130	698	16,602	1,489
	AVERAGE	10,200	8,562	1,588	-304	130	16,001	
1982	January	10,257	8,669	1,548	-236	1,129	15,890	1,461
	February	10,261	8,690	1,524	-216	1,268	15,941	1,431
	March*	10,212	R8,597	1,570	R-65	R1,049	R15,560	R1,401
	April**	NA	8,595	NA	32	1,058	15,510	1,422
AVERAGE		NA	8,637	NA	-120	1,123	15,722	

<sup>1</sup> Includes lease condensate.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>3</sup> Ending stocks for 1973-1979 are totals as of December 31.

<sup>4</sup> Includes crude oil, natural gas plant production, other hydrocarbons and alcohol.

<sup>5</sup> Includes stocks located in the Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

\* See Explanatory Note 5.1.

\*\* Preliminary statistics. See Explanatory Note 2.7.

Note: Beginning in January 1975, the Bureau of Mines, Dept. of Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Crude Oil<sup>1</sup> and Petroleum Products Overview ( continued )

		Imports <sup>2</sup>			Exports <sup>3</sup>			Net <sup>5</sup> Imports
		Total	Crude Oil <sup>4</sup>	Petroleum Products	Total	Crude Oil	Petroleum Products	
Thousand Barrels per Day								
1973	AVERAGE	6,256	3,244	3,012	231	2	229	6,025
1974	AVERAGE	6,112	3,477	2,635	221	3	218	5,892
1975	AVERAGE	6,056	4,105	1,951	209	6	204	5,846
1976	AVERAGE	7,313	5,287	2,026	223	8	215	7,090
1977	AVERAGE	8,807	6,615	2,193	243	50	193	8,565
1978	AVERAGE	8,363	6,356	2,008	362	158	204	8,002
1979	AVERAGE	8,456	6,519	1,937	472	235	237	7,984
1980	January	8,598	6,406	2,192	550	322	228	8,048
	February	7,945	6,013	1,931	558	332	227	7,386
	March	7,452	5,695	1,757	573	330	243	6,879
	April	7,106	5,598	1,508	434	192	241	6,672
	May	6,579	5,106	1,472	591	326	266	5,987
	June	6,894	5,480	1,414	654	365	289	6,240
	July	6,257	4,843	1,414	531	238	293	5,727
	August	6,192	4,803	1,389	319	78	241	5,873
	September	6,239	4,707	1,532	557	322	235	5,682
	October	6,379	4,768	1,611	598	309	288	5,781
	November	6,408	4,680	1,728	549	289	260	5,858
	December	6,894	5,082	1,812	622	343	279	6,272
		AVERAGE	6,909	5,263	1,646	544	287	258
1981	January	6,814	4,923	1,892	558	339	219	6,257
	February	6,777	4,873	1,904	569	198	371	6,208
	March	6,026	4,521	1,505	586	210	376	5,440
	April	5,767	4,457	1,310	570	198	372	5,198
	May	5,702	4,267	1,436	595	312	283	5,107
	June	5,422	4,084	1,338	420	123	297	5,002
	July	5,809	4,336	1,473	571	257	314	5,238
	August	5,737	4,165	1,572	644	204	440	5,093
	September	6,326	4,714	1,612	519	194	325	5,807
	October	5,939	4,382	1,557	738	226	512	5,202
	November	5,610	3,992	1,619	701	278	423	4,909
	December	5,896	4,189	1,707	656	189	467	5,240
		AVERAGE	5,981	4,406	1,576	595	228	367
1982	January	5,232	3,648	1,585	829	238	591	4,404
	February	4,691	2,949	1,742	804	304	499	3,887
	March*	R 4,461	R 2,856	R 1,606	882	321	561	3,579
	April**	3,854	2,604	1,250	NA	NA	NA	NA
	AVERAGE	4,562	3,019	1,543	NA	NA	NA	NA

<sup>1</sup> Includes lease condensate.

<sup>2</sup> Includes shipments from United States possessions and territories.

<sup>3</sup> Includes shipments to United States possessions and territories.

<sup>4</sup> Includes crude oil for storage in the Strategic Petroleum Reserve.

<sup>5</sup> Net Imports = Imports minus Exports.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

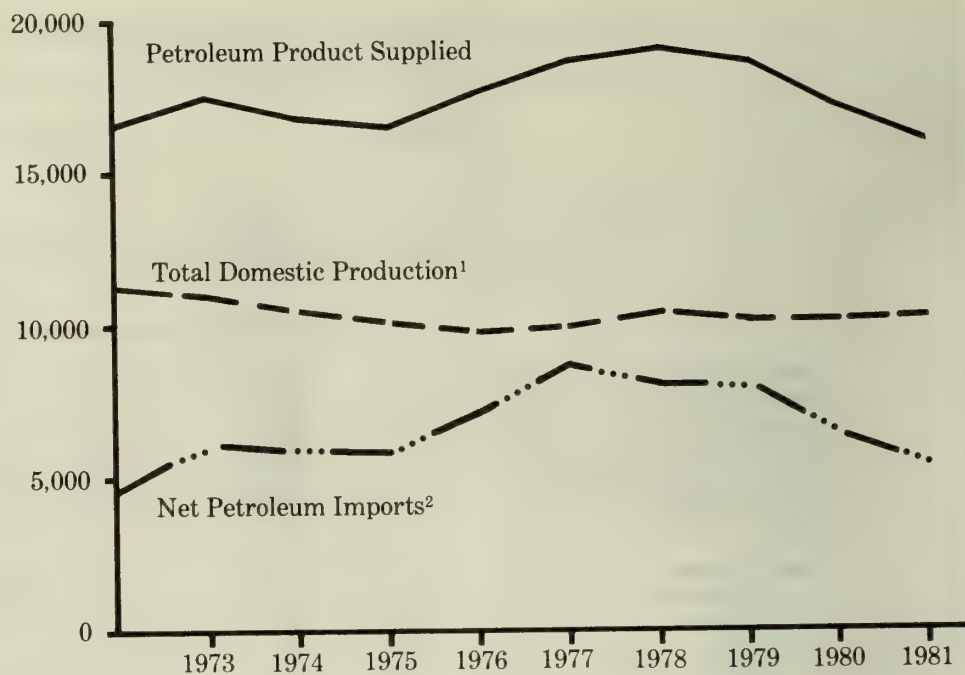
\* See Explanatory Note 5.1.

\*\* Preliminary Statistics. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

## Petroleum Overview, Annual (Thousand Barrels per Day)



<sup>1</sup>Includes crude oil and natural gas plant production.

<sup>2</sup>Includes SPR imports.

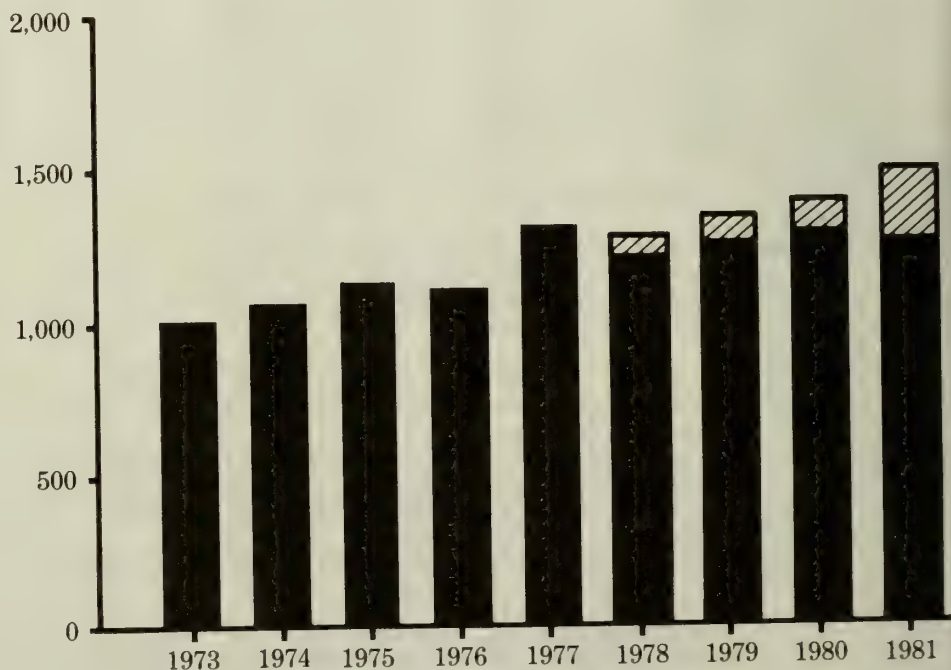
Source table: "Crude Oil and Petroleum Products Overview."

## Crude Oil and Petroleum Products Ending Stocks, Annual (Millions of Barrels)

### Legend

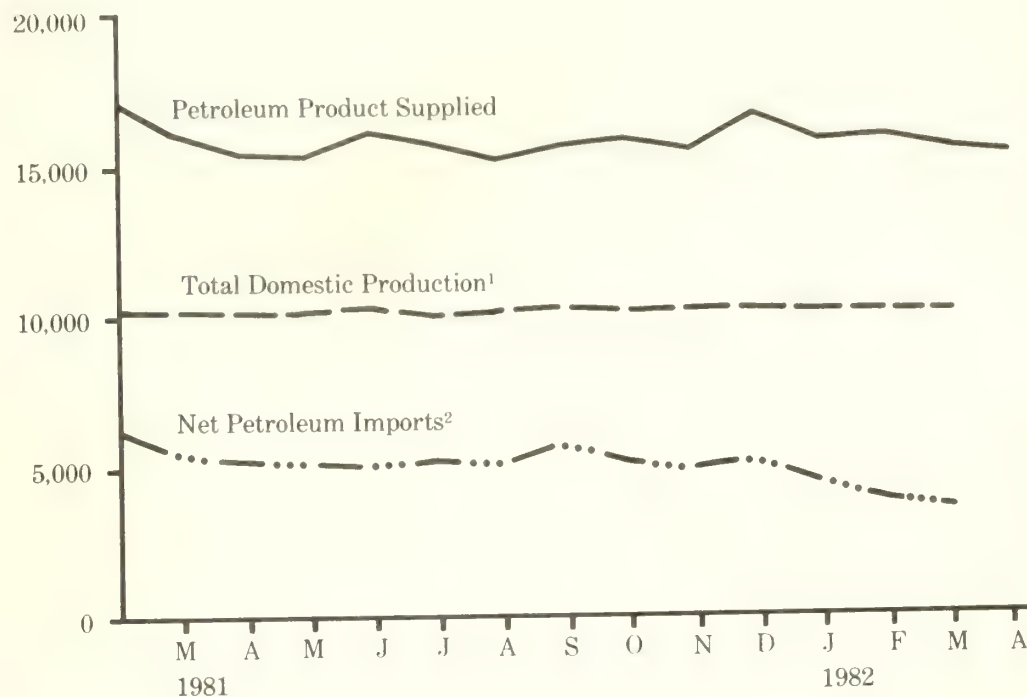
▨ SPR Crude Oil

■ Crude Oil and Petroleum Products, Excluding SPR



Source tables: "Crude Oil and Petroleum Products Overview" and "Crude Oil Supply and Disposition."

## Petroleum Overview, Monthly (Thousand Barrels per Day)



Includes crude oil and natural gas plant production.

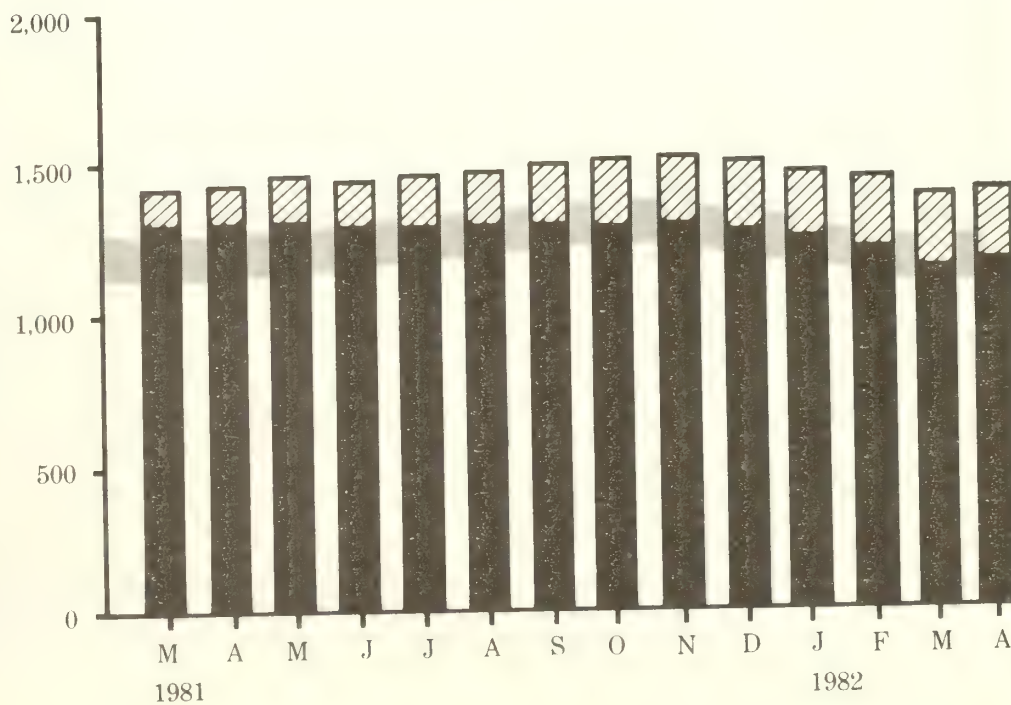
<sup>2</sup>Includes SPR imports.

Source table: "Crude Oil and Petroleum Products Overview."

## Crude Oil and Petroleum Product Ending Stocks, Monthly (Millions of Barrels)

### Legend

- SPR Crude Oil
- Crude Oil and Petroleum Products, Excluding SPR
- Average Stock Range<sup>1</sup>



<sup>1</sup>Average stock range (excluding SPR) based on 3 years of data. See Explanatory Note 2.5.

Source tables: "Crude Oil and Petroleum Products Overview" and "Crude Oil Supply and Disposition."

# Crude Oil<sup>1</sup> Supply and Disposition

		Supply						
		Field Production		Imports <sup>2</sup>			Stock Withdrawal <sup>3</sup>	
		Total Domestic	Alaskan	Total	SPR <sup>4</sup>	Other	SPR <sup>4</sup>	Other
		Thousand Barrels per Day						
1973	AVERAGE	9,208	198	3,244		3,244		11
1974	AVERAGE	8,774	193	3,477		3,477		-62
1975	AVERAGE	8,375	191	4,105		4,105		-17
1976	AVERAGE	8,132	173	5,287		5,287		-39
1977	AVERAGE	8,245	464	6,615	21	6,594	-20	-150
1978	AVERAGE	8,707	1,229	6,356	162	6,195	-163	84
1979	AVERAGE	8,552	1,401	6,519	67	6,452	-67	-81
1980	January	8,675	1,634	6,406	0	6,406	0	-594
	February	8,705	1,630	6,013	0	6,013	0	-292
	March	8,698	1,647	5,695	0	5,695	0	-47
	April	8,685	1,649	5,598	0	5,598	0	-412
	May	8,635	1,627	5,106	0	5,106	0	-117
	June	8,554	1,626	5,480	0	5,480	0	65
	July	8,547	1,612	4,843	0	4,843	0	88
	August	8,414	1,612	4,803	0	4,803	0	-274
	September	8,619	1,610	4,707	54	4,653	-54	361
	October	8,532	1,588	4,768	131	4,637	-123	-68
	November	8,495	1,561	4,680	142	4,538	-189	181
	December	8,606	1,602	5,082	198	4,884	-177	481
	AVERAGE	8,597	1,617	5,263	44	5,219	-45	-52
1981	January	8,533	1,606	4,923	106	4,817	-151	-41
	February	8,598	1,619	4,873	80	4,793	-127	-191
	March	8,601	1,618	4,521	140	4,382	-155	-335
	April	8,543	1,608	4,457	272	4,185	-444	-333
	May	8,496	1,580	4,267	386	3,881	-513	158
	June	8,616	1,632	4,084	318	3,766	-434	335
	July	8,422	1,605	4,336	175	4,161	-324	-10
	August	8,574	1,602	4,165	257	3,908	-372	880
	September	8,598	1,607	4,714	435	4,279	-486	126
	October	8,547	1,596	4,382	453	3,929	-501	-260
	November	8,595	1,618	3,992	271	3,720	-259	-93
	December	8,624	1,630	4,189	165	4,024	-252	122
	AVERAGE	8,562	1,610	4,406	256	4,150	-336	32
1982	January	8,669	1,712	3,648	170	3,478	-159	-77
	February	8,690	1,715	2,949	159	2,790	-213	-3
	March*	R 8,597	R 1,702	R 2,856	R 185	R 2,671	R -235	R 170
	April**	8,595	1,700	2,604	203	2,401	-209	241
	AVERAGE	8,637	1,707	3,019	180	2,840	-204	84

<sup>1</sup> Includes lease condensate.

<sup>2</sup> Includes shipments from United States possessions and territories.

<sup>3</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>4</sup> Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

\* See Explanatory Note 5.2.

\*\* Preliminary statistics. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Crude Oil<sup>1</sup> Supply and Disposition ( continued )

		Supply (Continued)		Disposition		Ending Stocks <sup>2</sup>		
		Unac- counted for Crude Oil	Crude Used Directly and Losses	Refinery Inputs	Exports <sup>3</sup>	Total Crude Oil	SPR <sup>4</sup>	Other Primary
		Thousand Barrels per Day				Millions of Barrels		
1973	AVERAGE	3	-32	12,431	2	242		242
1974	AVERAGE	-25	-28	12,133	3	265		265
1975	AVERAGE	17	-30	12,442	6	271		271
1976	AVERAGE	77	-33	13,416	8	285		285
1977	AVERAGE	-6	-30	14,602	50	348	7	340
1978	AVERAGE	-57	-30	14,739	158	376	67	309
1979	AVERAGE	-11	-29	14,648	235	430	91	339
1980	January	166	-31	14,301	322	449	91	358
	February	124	-31	14,187	332	457	91	366
	March	-278	-30	13,709	330	459	91	367
	April	-165	-29	13,484	192	471	91	380
	May	55	-28	13,326	326	475	91	383
	June	1	-30	13,705	365	473	91	381
	July	52	-29	13,264	238	470	91	379
	August	147	-28	12,984	78	478	91	387
	September	27	-26	13,313	322	469	93	376
	October	-3	-25	12,772	309	475	97	379
	November	266	-26	13,119	289	475	102	373
	December	24	-26	13,648	343	466	108	358
	AVERAGE	34	-28	13,481	287			
1981	January	352	-28	13,248	339	494	112	381
	February	-29	-23	12,903	198	503	116	387
	March	-10	-29	12,383	210	518	121	397
	April	92	-27	12,090	198	541	134	407
	May	241	-28	12,309	312	552	150	402
	June	-33	-30	12,415	123	555	163	392
	July	162	-62	12,267	257	566	173	393
	August	-71	-61	12,911	204	550	185	365
	September	-184	-65	12,510	194	561	199	361
	October	190	-67	12,065	226	584	215	369
	November	371	-68	12,260	278	595	223	372
	December	-45	-67	12,383	189	599	230	369
	AVERAGE	88	-46	12,477	228			
1982	January	-138	-66	11,638	238	606	235	371
	February	199	-66	11,252	304	612	241	371
	March*	278	-68	R11,277	321	R 614	R 249	R366
	April**	NA	NA	11,537	NA	623	254	369
	AVERAGE	NA	NA	11,429	NA			

<sup>1</sup> Includes lease condensate.

<sup>2</sup> Ending stocks for 1973-1979 are totals as of December 31.

<sup>3</sup> Includes shipments to United States possessions and territories.

<sup>4</sup> Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

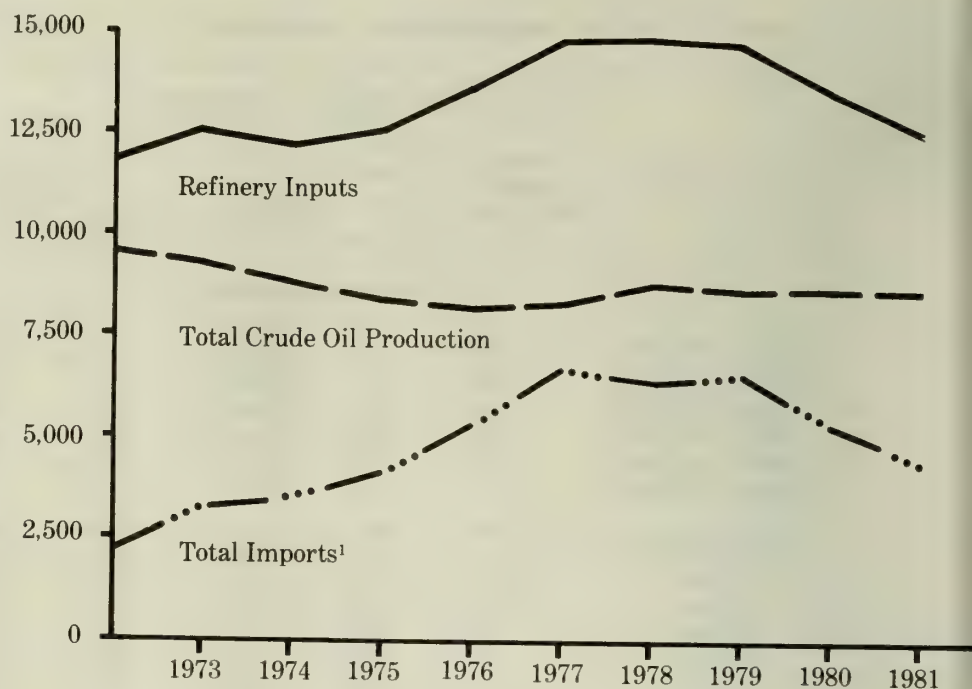
\* See Explanatory Note 5.2.

\*\* Preliminary statistics. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

## Crude Oil Supply and Disposition, Annual (Thousand Barrels per Day)



¹Includes SPR imports.

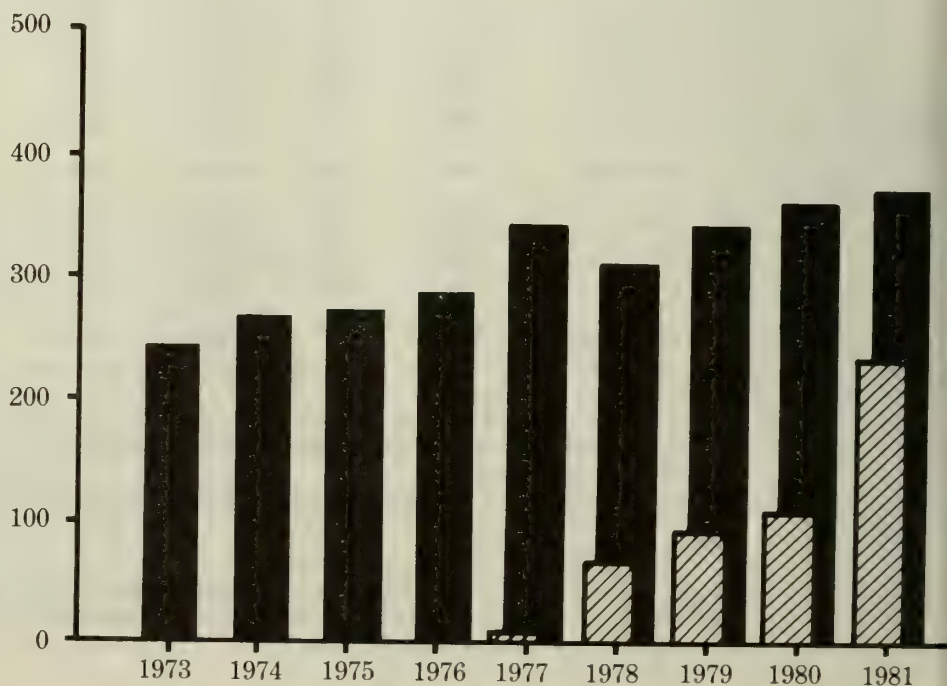
Source table: "Crude Oil Supply and Disposition."

## Crude Oil Ending Stocks, Annual (Millions of Barrels)

### Legend

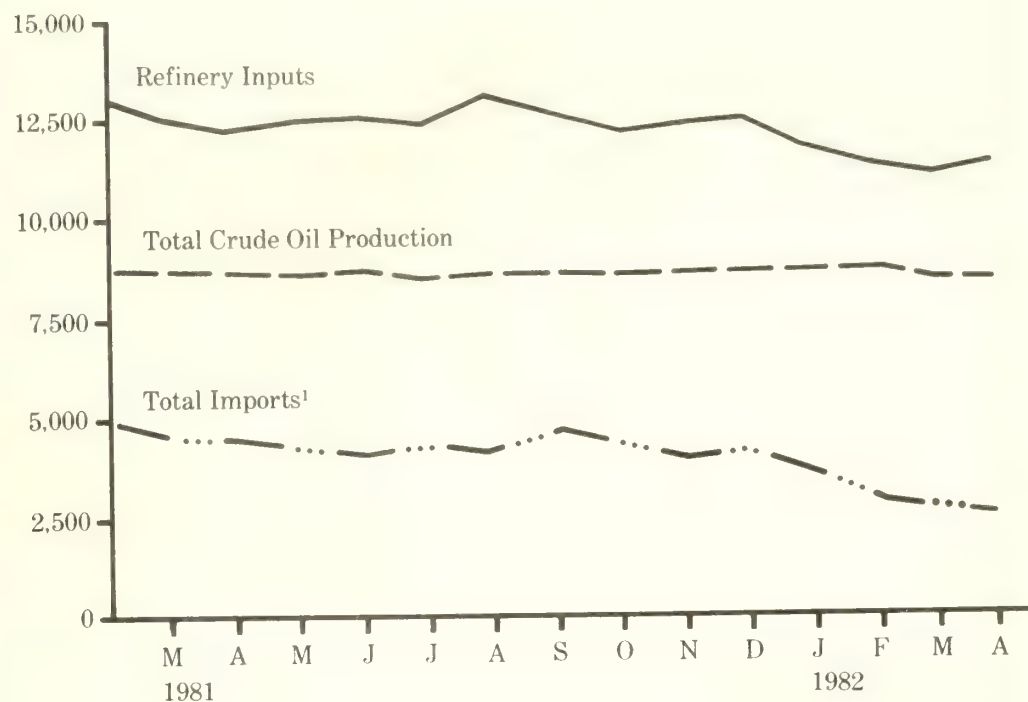
▨ SPR

■ Other Primary



Source table: "Crude Oil Supply and Disposition."

### Crude Oil Supply and Disposition, Monthly (Thousand Barrels per Day)



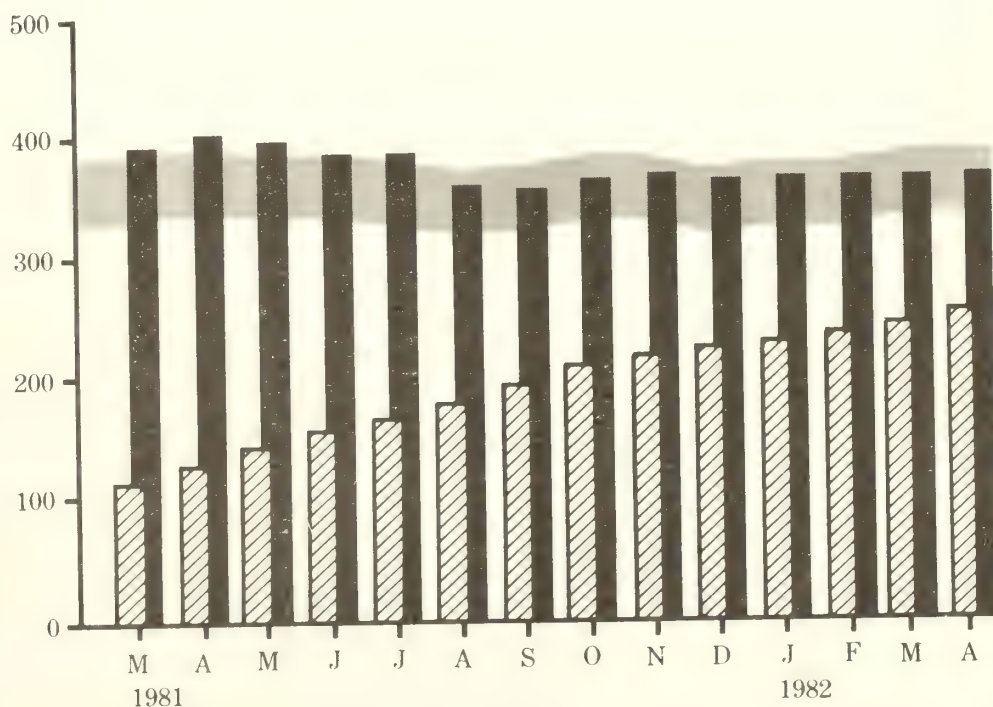
¹Includes SPR imports.

Source table: "Crude Oil Supply and Disposition."

### Crude Oil Ending Stocks, Monthly (Millions of Barrels)

#### Legend

- ▨ SPR
- Other Primary
- Average Stock Range¹



¹Average stock range (excluding SPR) based on 3 years of data. See Explanatory Note 2.5.

Source table: "Crude Oil Supply and Disposition."

# Finished Motor Gasoline Supply and Disposition

		Supply			Disposition				Ending Stocks <sup>1</sup>	
		Total Produc- tion	Imports <sup>2</sup>	Stock With- drawal <sup>2 3</sup>	Exports	Product Supplied			Total Motor Gasoline <sup>4</sup>	Finishe Motor Gasolin
						Total	Unleaded <sup>5</sup>	Unleaded		
Thousand Barrels per Day								Percent of Total	Millions of Barrels	
1973	AVERAGE	6,535	134	9	4	6,674	NA	NA	209	
1974	AVERAGE	6,360	204	-24	2	6,537	NA	NA	218	
1975	AVERAGE	6,520	184	-28	2	6,675	NA	NA	235	
1976	AVERAGE	6,841	131	10	3	6,978	NA	NA	231	
1977	AVERAGE	7,033	217	-72	2	7,177	1,976	27.5	258	
1978	AVERAGE	7,169	190	54	1	7,412	2,521	34.0	238	
1979	AVERAGE	6,852	181	2	(s)	7,034	2,798	39.8	237	
1980	January	6,991	141	-809	1	6,323	2,718	43.0	262	
	February	6,866	154	-423	(s)	6,596	2,969	45.0	275	
	March	6,519	155	-267	(s)	6,406	3,032	47.3	283	
	April	6,284	155	362	1	6,800	3,021	44.4	272	
	May	6,316	132	283	1	6,729	2,980	44.3	263	
	June	6,569	148	-59	1	6,657	3,099	46.6	265	
	July	6,465	149	-132	3	6,743	3,131	46.4	261	
	August	6,452	141	56	1	6,648	3,135	47.2	259	
	September	6,383	106	28	7	6,510	3,054	46.9	258	
	October	6,131	152	380	1	6,662	3,110	46.7	247	
	November	6,467	126	-359	(s)	6,234	3,123	50.1	257	
	December	6,644	121	-133	1	6,632	3,421	51.6	261	
	AVERAGE	6,506	140	-66	1	6,579	3,067	46.6		
1981	January	6,687	138	-435	(s)	6,389	3,115	48.8	277	227
	February	6,282	111	-100	1	6,293	3,103	49.3	284	230
	March	6,213	170	-81	(s)	6,303	3,097	49.1	285	232
	April	6,114	174	298	(s)	6,585	3,281	49.8	272	223
	May	6,121	146	341	1	6,608	3,119	47.2	258	213
	June	6,222	161	620	1	7,001	3,421	48.9	242	194
	July	6,417	118	282	(s)	6,817	3,420	50.2	227	185
	August	6,616	125	-93	3	6,645	3,346	50.4	233	188
	September	6,567	169	-74	2	6,660	3,337	50.1	237	191
	October	6,447	143	10	3	6,598	3,253	49.3	235	190
	November	6,583	145	-333	1	6,395	3,203	50.1	247	200
	December	6,621	196	-91	11	6,715	3,444	51.3	251	203
	AVERAGE	6,409	150	29	2	6,586	3,262	49.5		
1982	January	6,181	114	-358	18	5,920	3,033	51.2	262	214
	February	5,917	133	28	8	6,070	3,145	51.8	262	213
	March*	R 6,004	183	469	44	R 6,612	3,396	51.4	R 248	199
	April**	5,916	NA	NA	NA	6,190	NA	NA	223	NA
	AVERAGE	6,007	NA	NA	NA	6,201	NA	NA		

<sup>1</sup> Ending stocks for 1973-1979 are totals as of December 31.

<sup>2</sup> Beginning in 1981 excludes blending components.

<sup>3</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>4</sup> Includes motor gasoline blending components.

<sup>5</sup> Includes gasohol.

Totals may not equal sum of components due to independent rounding.

(s) = Less than 500 barrels. NA = Not available. R = Revised data.

\* See Explanatory Note 5.3.

\*\* Preliminary statistics. See Explanatory Note 2.7.

Notes: Beginning in January 1981, the Energy Information Administration modified survey forms, definitions, and processing procedures. See Explanatory Note 4 on Changes for the effects on motor gasoline statistics.

Beginning in January 1975, the Bureau of Mines, Dept. of the Interior, expanded its stocks coverage to include additional 100 bulk terminal operators.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks <sup>1</sup>
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Crude Used Directly	Exports	Product Supplied	
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	2,822	392	-115	2	9	3,092	196
1974	AVERAGE	2,669	289	-9	2	2	2,948	200
1975	AVERAGE	2,654	155	40	2	1	2,851	209
1976	AVERAGE	2,924	146	62	1	1	3,133	186
1977	AVERAGE	3,278	250	-176	1	1	3,352	250
1978	AVERAGE	3,167	173	93	1	3	3,432	216
1979	AVERAGE	3,153	193	-34	1	3	3,311	229
1980	January	3,014	179	526	1	7	3,714	212
	February	2,766	237	716	1	8	3,712	192
	March	2,558	193	445	1	19	3,179	178
	April	2,461	154	21	2	2	2,635	177
	May	2,474	126	-199	1	1	2,402	183
	June	2,647	108	-439	1	( <sup>s</sup> )	2,317	197
	July	2,690	117	-557	2	3	2,249	214
	August	2,462	77	-403	2	( <sup>s</sup> )	2,137	226
	September	2,686	101	-201	2	( <sup>s</sup> )	2,587	232
	October	2,590	115	215	1	( <sup>s</sup> )	2,920	226
	November	2,703	133	111	1	( <sup>s</sup> )	2,949	222
	December	2,891	166	556	1	( <sup>s</sup> )	3,615	205
	AVERAGE	2,662	142	64	1	3	2,866	
1981	January	2,988	273	818	11	( <sup>s</sup> )	4,090	180
	February	2,810	325	267	11	17	3,395	173
	March	2,484	144	254	9	( <sup>s</sup> )	2,891	165
	April	2,418	116	( <sup>s</sup> )	10	3	2,541	165
	May	2,454	165	-234	10	( <sup>s</sup> )	2,395	172
	June	2,502	201	-275	10	( <sup>s</sup> )	2,437	180
	July	2,403	179	-210	10	2	2,381	187
	August	2,656	159	-439	8	( <sup>s</sup> )	2,384	200
	September	2,611	129	-217	10	1	2,532	207
	October	2,490	117	182	9	5	2,792	201
	November	2,729	114	38	11	6	2,886	200
	December	2,862	95	317	11	26	3,258	190
	AVERAGE	2,616	167	42	10	5	2,830	
1982	January	2,615	96	780	10	90	3,410	166
	February	2,447	130	689	11	90	3,187	147
	March*	R2,294	R48	R612	10	84	R2,881	R128
	April**	2,368	94	591	NA	NA	2,980	107
AVERAGE		2,431	91	668	NA	NA	3,114	

<sup>1</sup> Ending stocks for 1973 - 1979 are totals as of December 31.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease. Totals may not equal sum of components due to independent rounding.

(<sup>s</sup>) = Less than 500 barrels per day. NA = Not available. R = Revised data.

\* See Explanatory Note 5.4.

\*\* Preliminary Statistics. See Explanatory Note 2.7.

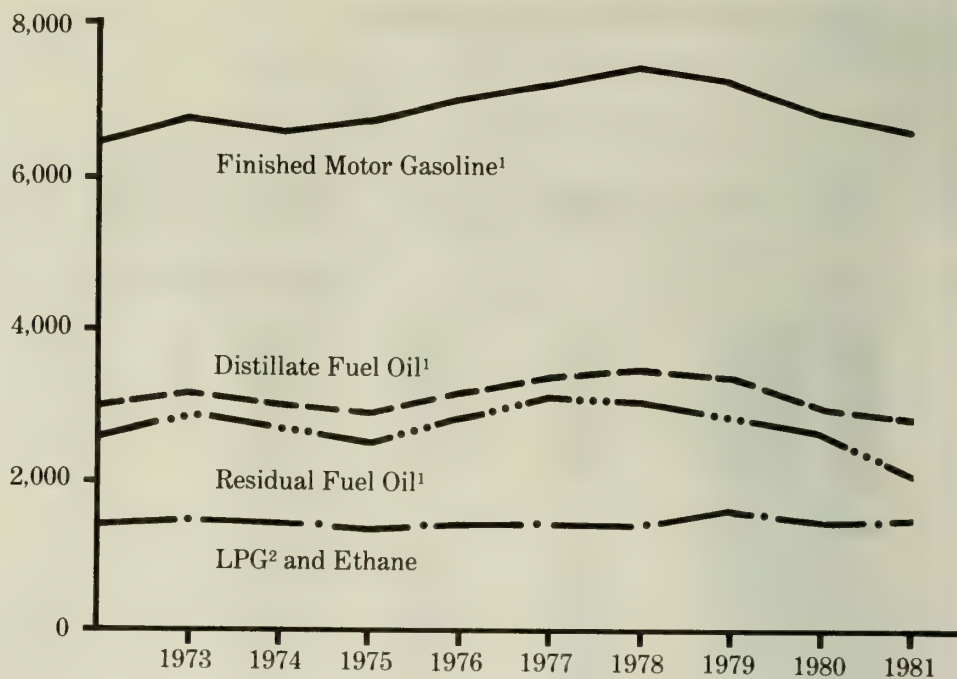
Note: Beginning in January 1981, the Energy Information Administration modified survey forms, definitions, and processing procedures. See Explanatory Note 4 on Changes for the effects on Distillate Fuel Oil statistics.

Beginning in January 1975, the Bureau of Mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

### Products Supplied, Annual (Thousand Barrels per Day)

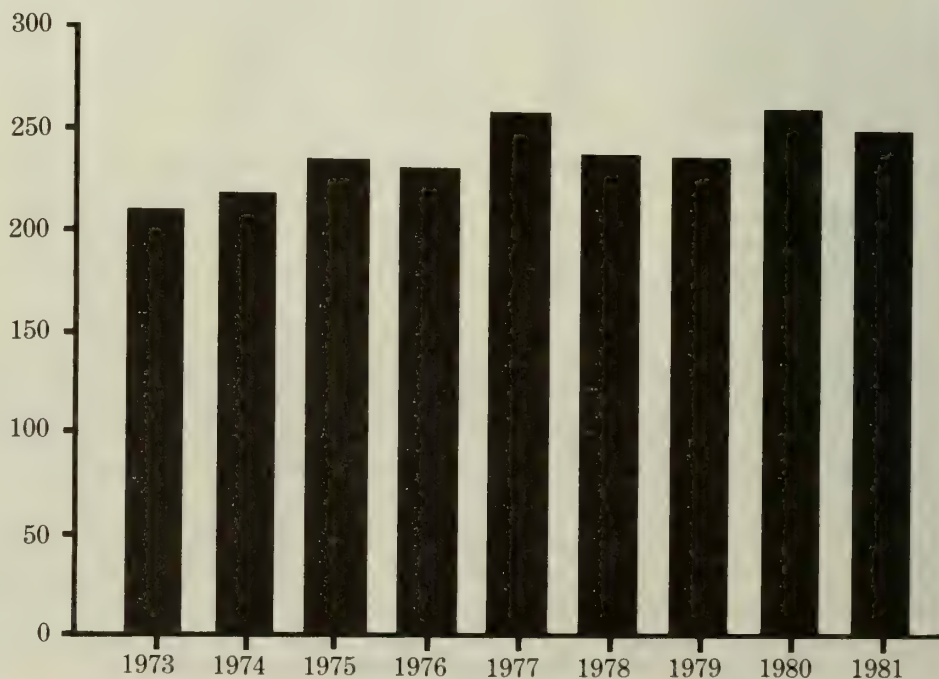


<sup>1</sup>Figures for 1979 and 1980 recast to account for data system changes in 1981. See Explanatory Note 4.

<sup>2</sup>Liquefied Petroleum Gases.

Source tables: "Finished Motor Gasoline Supply and Disposition," "Distillate Fuel Oil Supply and Disposition," "Residual Fuel Oil Supply and Disposition," "Liquefied Petroleum Gases and Ethane Supply and Disposition."

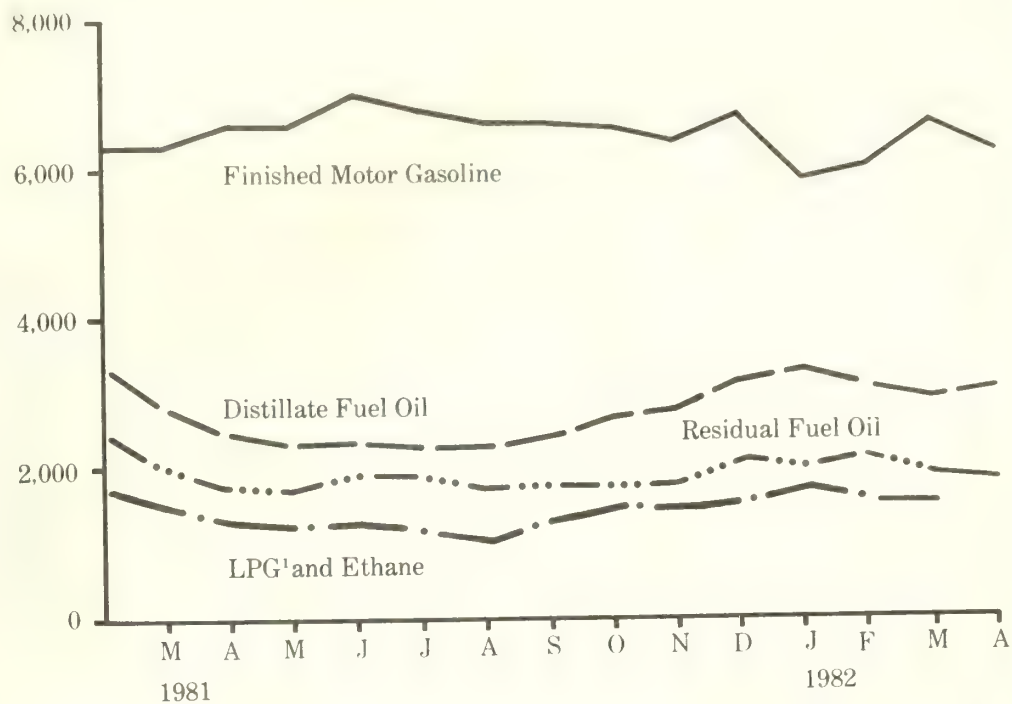
### Motor Gasoline<sup>1</sup> Ending Stocks, Annual (Millions of Barrels)



<sup>1</sup>Includes finished motor gasoline blending components.

Source table: "Finished Motor Gasoline Supply and Disposition."

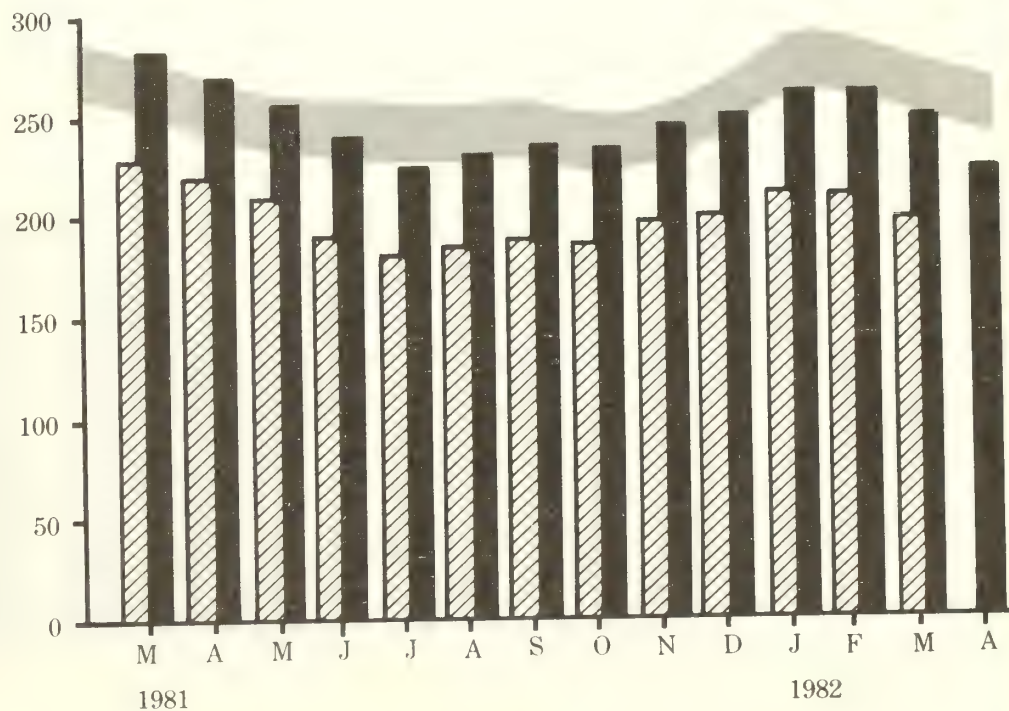
## Products Supplied, Monthly (Thousand Barrels per Day)



## Motor Gasoline Ending Stocks, Monthly (Millions of Barrels)

### Legend

- Total Motor Gasoline¹
- ▨ Finished Motor Gasoline
- Average Stock Range²

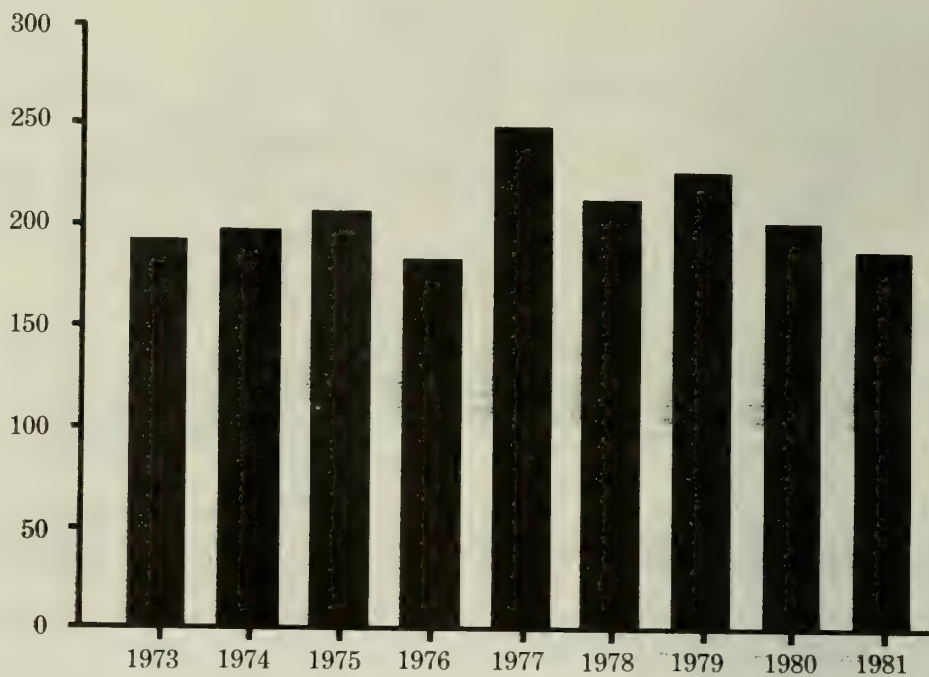


¹Includes finished motor gasoline blending components.

²Average stock range for total motor gasoline based on 3 years of data. See Explanatory Note 2.5.

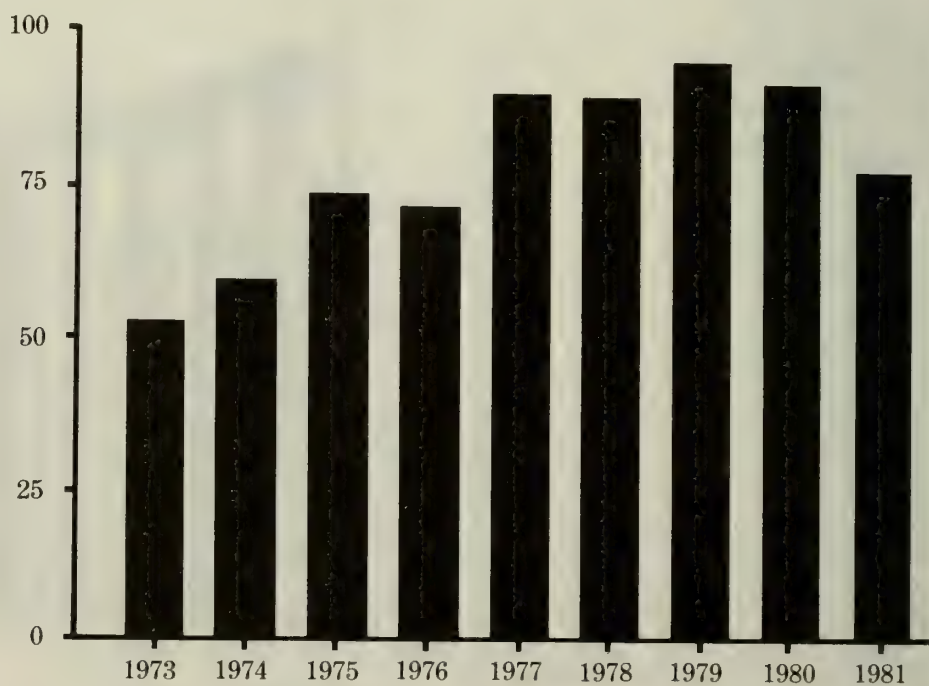
Source table: "Finished Motor Gasoline Supply and Disposition."

### Distillate Fuel Oil Ending Stocks, Annual (Millions of Barrels)



Source table: "Distillate Fuel Oil Supply and Disposition."

### Residual Fuel Oil Ending Stocks, Annual (Millions of Barrels)



Source table: "Residual Fuel Oil Supply and Disposition."

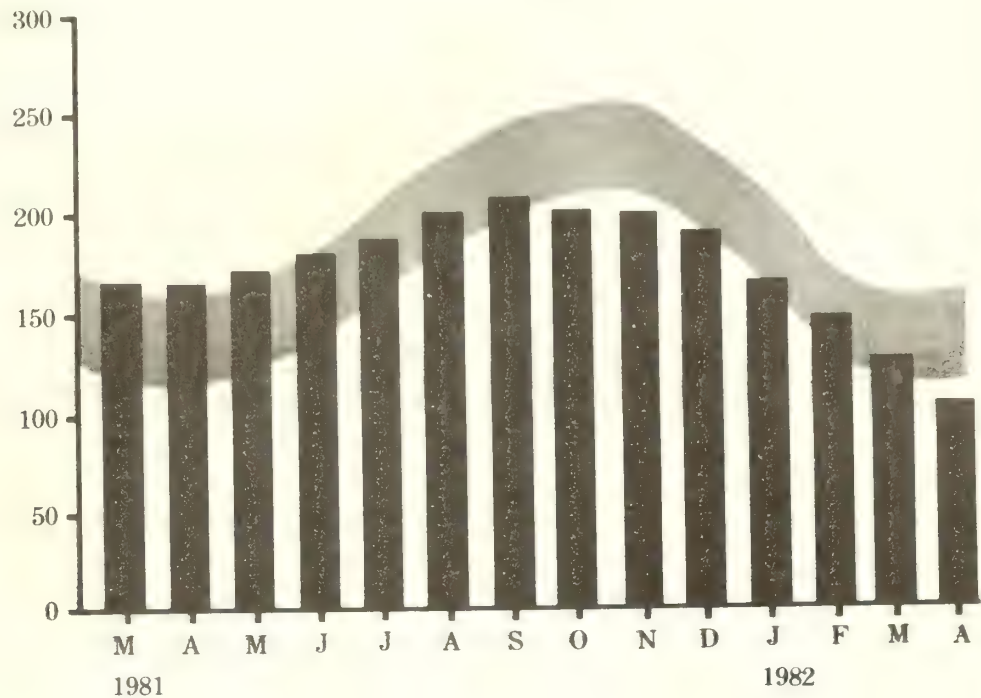
### Distillate Fuel Oil Ending Stocks, Monthly (Millions of Barrels)

#### Legend

■ Average Stock Range<sup>1</sup>

<sup>1</sup>Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Distillate Fuel Oil Supply and Disposition."



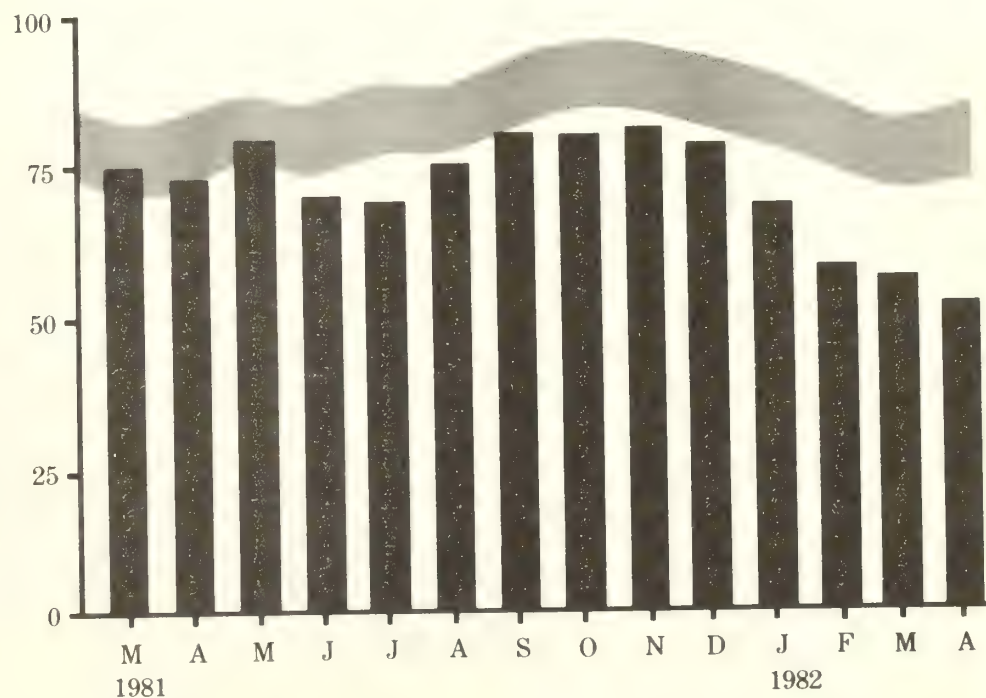
### Residual Fuel Oil Ending Stocks, Monthly (Millions of Barrels)

#### Legend

■ Average Stock Range<sup>1</sup>

<sup>1</sup>Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Residual Fuel Oil Supply and Disposition."



# Residual Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks <sup>1</sup>
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Crude Used Directly	Exports	Products Supplied	
		Thousand Barrels per Day						
								Millions of Barrels
1973	AVERAGE	971	1,853	5	17	23	2,822	53
1974	AVERAGE	1,070	1,587	-17	13	14	2,639	60
1975	AVERAGE	1,235	1,223	2	15	15	2,462	74
1976	AVERAGE	1,377	1,413	5	17	12	2,801	72
1977	AVERAGE	1,754	1,359	-48	13	6	3,071	90
1978	AVERAGE	1,667	1,355	-1	13	13	3,023	90
1979	AVERAGE	1,687	1,151	-15	12	9	2,826	96
1980	January	1,771	1,338	-51	14	5	3,067	97
	February	1,773	1,122	214	14	17	3,105	91
	March	1,584	976	87	14	2	2,658	88
	April	1,595	775	102	13	40	2,444	85
	May	1,509	812	-78	12	20	2,235	88
	June	1,575	749	-4	14	14	2,321	88
	July	1,480	787	71	13	60	2,291	86
	August	1,444	875	-43	13	2	2,286	87
	September	1,495	906	-31	10	21	2,359	88
	October	1,512	875	-100	9	70	2,227	91
	November	1,579	1,024	-74	10	88	2,451	93
	December	1,660	1,025	46	10	62	2,679	92
	AVERAGE	1,580	939	10	12	33	2,508	
1981	January	1,611	1,015	298	11	65	2,870	82
	February	1,565	956	144	9	125	2,549	78
	March	1,423	699	107	14	145	2,098	75
	April	1,320	584	63	14	151	1,829	73
	May	1,222	735	-177	14	25	1,769	79
	June	1,232	540	283	14	76	1,993	70
	July	1,174	830	26	48	82	1,995	69
	August	1,230	819	-179	48	69	1,849	75
	September	1,286	841	-174	51	126	1,878	80
	October	1,232	773	8	54	202	1,865	80
	November	1,218	844	-35	53	203	1,878	81
	December	1,295	920	80	52	157	2,191	78
	AVERAGE	1,316	796	36	32	118	2,062	
1982	January	1,183	821	328	53	235	2,150	68
	February	1,136	928	358	53	213	2,261	58
	March*	R1,121	R910	R26	53	197	R1,912	R57
	April**	1,174	675	117	NA	NA	1,822	53
	AVERAGE	1,154	832	204	NA	NA	2,032	

<sup>1</sup> Ending Stocks for 1973-1979 are totals as of December 31.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease. Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

\* See Explanatory Note 5.4.

\*\* Preliminary Statistics. See Explanatory Note 2.7.

Notes: Beginning in January 1981, the Energy Information Administration modified survey forms, definitions, and processing procedures.

See Explanatory Note 4 on changes for the effects on residual fuel oil statistics.

Beginning in January 1975, The Bureau of Mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic Coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Liquefied Petroleum Gases and Ethane Supply and Disposition

		Supply			Disposition			Ending Stocks <sup>1</sup>
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Refinery Inputs	Exports	Product Supplied	Millions of Barrels
Thousand Barrels per Day								
1973	AVERAGE	1,600	132	-35	220	27	1,449	99
1974	AVERAGE	1,565	123	-38	220	25	1,406	113
1975	AVERAGE	1,527	112	-35	246	26	1,333	125
1976	AVERAGE	1,535	130	24	260	25	1,404	116
1977	AVERAGE	1,566	161	-55	233	18	1,422	136
1978	AVERAGE	1,537	123	12	239	20	1,413	132
1979	AVERAGE	1,556	217	70	236	15	1,592	111
1980	January	1,560	264	461	291	30	1,963	96
	February	1,581	252	209	252	26	1,764	90
	March	1,519	214	7	211	23	1,506	90
	April	1,546	186	-339	171	19	1,203	100
	May	1,538	181	-224	182	17	1,295	107
	June	1,528	184	-319	170	18	1,205	117
	July	1,485	172	-283	209	18	1,147	126
	August	1,507	158	-296	203	17	1,149	135
	September	1,495	213	-80	228	19	1,382	137
	October	1,546	249	86	259	24	1,597	134
	November	1,549	231	82	304	23	1,535	132
	December	1,567	289	373	319	23	1,888	120
		AVERAGE	1,535	216	-27	233	21	1,469
1981	January	1,628	306	373	352	21	1,934	116
	February	1,614	327	166	303	21	1,783	112
	March	1,570	260	-3	257	20	1,550	112
	April	1,598	214	-218	231	26	1,338	118
	May	1,608	189	-273	220	19	1,285	127
	June	1,577	206	-194	235	24	1,330	133
	July	1,526	213	-253	215	17	1,253	141
	August	1,560	195	-241	235	149	1,129	148
	September	1,620	199	-107	287	21	1,404	151
	October	1,608	287	85	317	76	1,586	149
	November	1,667	280	74	382	58	1,581	146
	December	1,610	255	303	447	50	1,671	137
		AVERAGE	1,598	244	-25	290	42	1,485
1982	January	1,546	314	480	398	67	1,873	122
	February	1,476	291	310	327	51	1,699	114
	March*	1,523	223	145	289	74	1,528	109
	AVERAGE	1,516	275	312	338	65	1,700	

<sup>1</sup> Ending stocks for 1973 - 1979 are totals as of December 31.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

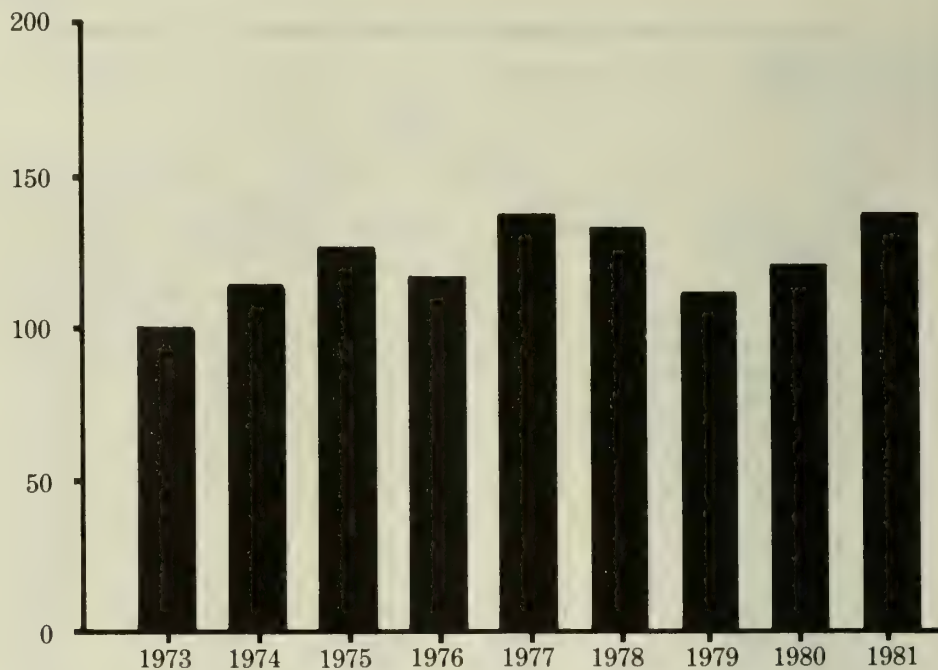
Totals may not equal sum of components due to independent rounding.

\* See Explanatory Note 5.5.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf excluding the Hawaiian Foreign Trade Zone.

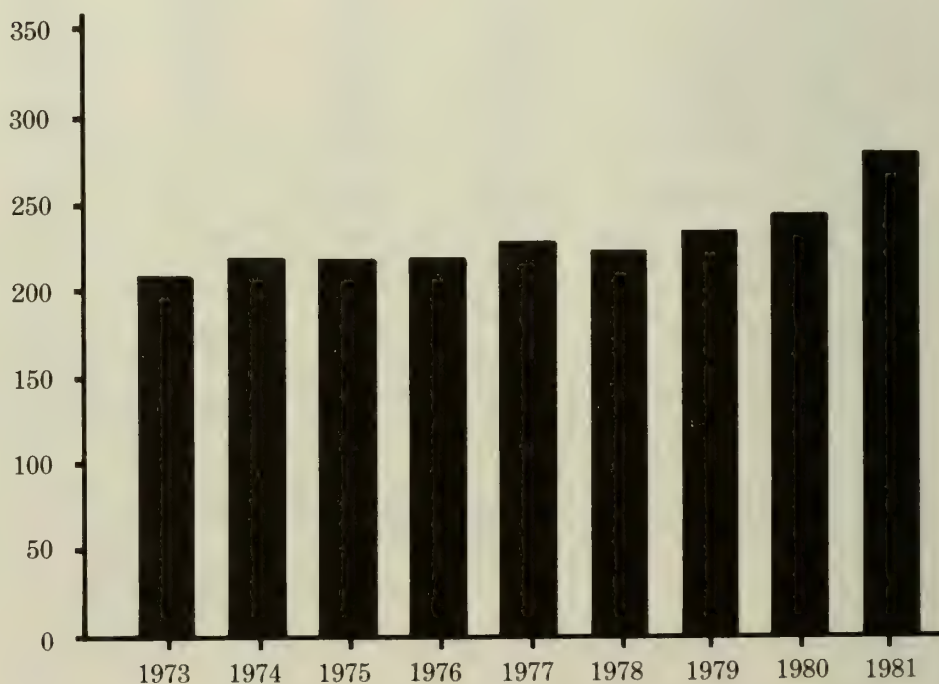
Sources: See "Sources" at the end of this section.

### Liquefied Petroleum Gases and Ethane Ending Stocks, Annual (Millions of Barrels)



Source table: "Liquefied Petroleum Gases and Ethane Supply and Disposition."

### Other Petroleum Products<sup>1</sup> Ending Stocks, Annual (Millions of Barrels)



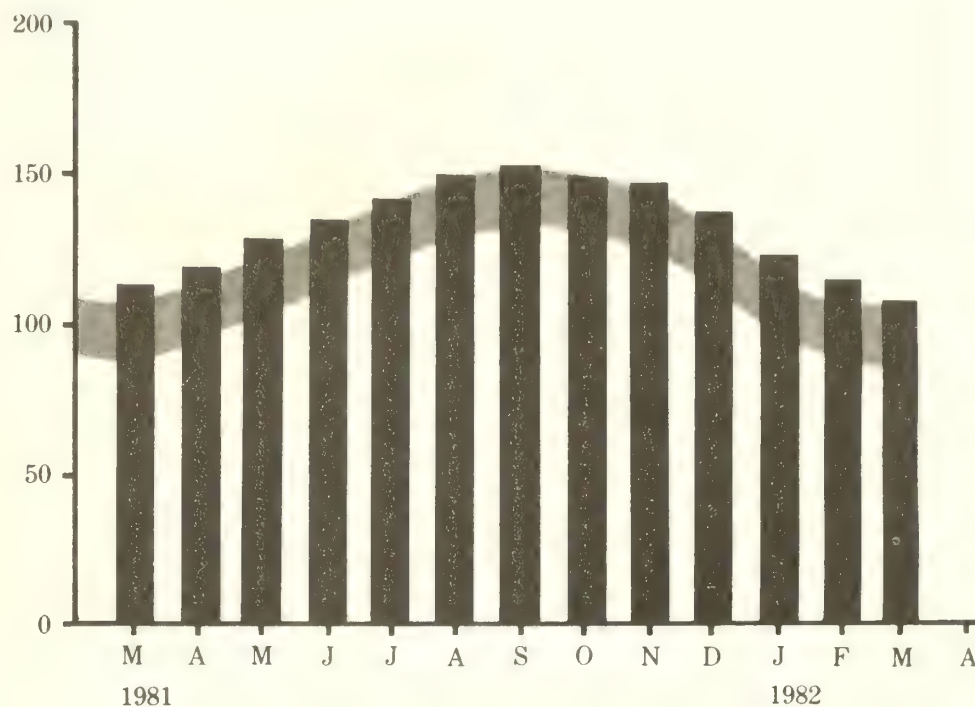
<sup>1</sup>Includes natural gasoline and isopentane, unfinished oils, gasoline blending components, jet fuels, kerosene, lubricants, and asphalt. Some gasoline blending components not included prior to 1981.

Source table: "Other Petroleum Products Supply and Disposition."

## Liquefied Petroleum Gases and Ethane Ending Stocks, Monthly (Millions of Barrels)

### Legend

■ Average Stock Range<sup>1</sup>



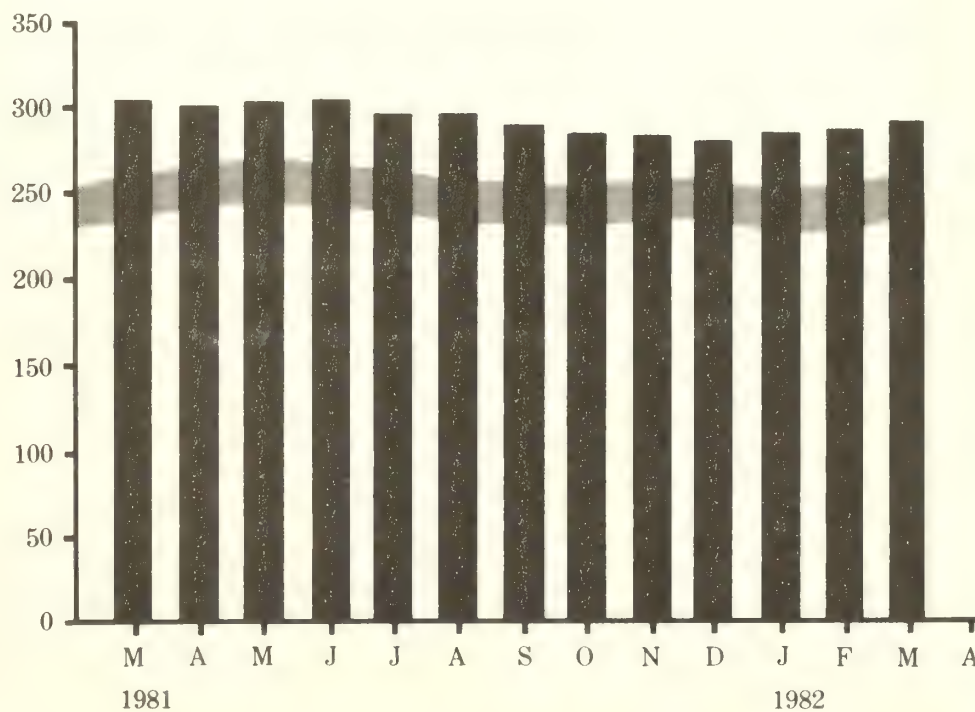
<sup>1</sup>Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Liquefied Petroleum Gases and Ethane Supply and Disposition."

## Other Petroleum Products<sup>1</sup> Endings Stocks, Monthly (Millions of Barrels)

### Legend

■ Average Stock Range<sup>2</sup>



<sup>1</sup>Includes natural gasoline and isopentane, unfinished oils, gasoline blending components, jet fuels, kerosene, lubricants, and asphalt.

<sup>2</sup>Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Other Petroleum Products Supply and Disposition."

# Other Petroleum Products<sup>1</sup> Supply and Disposition

		Supply			Disposition			Ending Stocks <sup>2</sup>
		Total Production	Imports	Stock Withdrawal <sup>3</sup>	Refinery Inputs	Exports	Products Supplied	
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	3,693	502	-9	750	166	3,270	208
1974	AVERAGE	3,558	432	-28	665	174	3,123	218
1975	AVERAGE	3,424	277	-2	537	160	3,002	219
1976	AVERAGE	3,643	206	-5	524	175	3,145	220
1977	AVERAGE	3,912	205	-27	514	165	3,410	230
1978	AVERAGE	4,046	166	14	492	167	3,568	225
1979	AVERAGE	4,153	195	-37	352	209	3,749	238
1980	January	4,157	269	135	591	186	3,785	234
	February	4,181	167	-153	380	174	3,641	239
	March	4,128	219	-370	149	200	3,627	250
	April	4,105	238	-374	86	180	3,703	261
	May	4,018	222	-301	135	227	3,577	271
	June	4,016	226	-49	250	256	3,687	272
	July	3,873	188	82	356	209	3,578	270
	August	3,753	138	212	351	221	3,532	263
	September	3,952	206	25	234	188	3,761	262
	October	3,737	220	175	351	193	3,588	257
	November	3,786	213	156	475	148	3,533	252
	December	3,792	209	151	362	194	3,596	247
	AVERAGE	3,956	210	-23	311	198	3,634	
1981	January	3,719	159	86	827	132	3,005	296
	February	3,664	185	-219	513	208	2,909	302
	March	3,660	232	-42	643	210	2,996	304
	April	3,652	223	38	733	192	2,987	302
	May	3,832	201	-61	595	238	3,139	304
	June	3,898	230	-37	659	197	3,236	305
	July	3,840	134	302	797	212	3,267	296
	August	3,875	275	-25	678	219	3,228	297
	September	3,748	273	187	887	176	3,145	291
	October	3,495	237	231	738	227	2,999	284
	November	3,503	215	12	807	154	2,768	284
	December	3,486	207	88	793	223	2,766	281
	AVERAGE	3,693	219	49	724	200	3,038	
1982	January	3,181	240	-102	602	180	2,536	284
	February	3,364	260	-116	646	138	2,724	287
	March*	3,485	241	-204	734	161	2,627	294
	AVERAGE	3,342	247	-141	661	160	2,626	

<sup>1</sup> Includes natural gasoline and isopentane, unfractionated stream, plant condensate, other liquids; and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil.

<sup>2</sup> Ending Stocks for 1973-1979 are totals as of December 31.

<sup>3</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease. Totals may not equal sum of components due to independent rounding.

\* See Explanatory Note 5.6.

Note: Beginning in January 1975, the Bureau of mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic Coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Crude Oil and Petroleum Product Imports from OPEC Sources

	Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC <sup>1</sup>	Total OPEC	Total Arab OPEC <sup>2</sup>
Thousand Barrels per Day											
<b>1973</b>											
<b>AVERAGE</b>	136	164	486	71	213	223	459	1,135	106	2,993	915
<b>1974</b>											
<b>AVERAGE</b>	190	4	461	74	300	469	713	979	88	3,280	752
<b>1975</b>											
<b>AVERAGE</b>	282	232	715	117	390	280	762	702	122	3,601	1,383
<b>1976</b>											
<b>AVERAGE</b>	432	453	1,230	254	539	298	1,025	700	134	5,066	2,424
<b>1977</b>											
<b>AVERAGE</b>	559	723	1,380	335	541	535	1,143	690	287	6,193	3,185
<b>1978</b>											
<b>AVERAGE</b>	649	654	1,144	385	573	555	919	645	226	5,751	2,963
<b>1979</b>											
<b>AVERAGE</b>	636	658	1,356	281	420	304	1,080	690	212	5,637	3,056
<b>1980</b>											
January	503	618	1,576	202	454	95	1,054	786	179	5,467	3,034
February	656	603	1,412	304	317	9	1,036	543	152	5,031	3,058
March	472	654	1,380	289	405	0	924	352	175	4,652	2,889
April	546	683	1,300	150	374	0	734	343	240	4,369	2,862
May	441	468	1,149	172	360	0	955	405	147	4,098	2,329
June	497	561	1,328	178	331	0	998	409	106	4,408	2,598
July	557	492	1,192	158	365	0	752	417	62	3,995	2,418
August	432	431	1,139	142	289	0	792	406	112	3,743	2,222
September	375	505	1,112	107	299	0	735	425	111	3,670	2,185
October	465	478	1,044	182	348	0	728	482	95	3,821	2,226
November	493	500	1,201	105	348	0	624	595	78	3,944	2,338
December	423	658	1,301	83	288	0	958	610	101	4,423	2,484
<b>AVERAGE</b>	<b>488</b>	<b>554</b>	<b>1,261</b>	<b>172</b>	<b>348</b>	<b>9</b>	<b>857</b>	<b>481</b>	<b>130</b>	<b>4,300</b>	<b>2,551</b>
<b>1981</b>											
January	324	500	1,297	93	424	0	908	556	27	4,129	2,214
February	381	468	1,122	93	407	0	866	466	92	3,895	2,064
March	352	485	1,027	47	328	0	771	360	54	3,425	1,911
April	263	496	1,056	85	314	0	826	237	42	3,317	1,916
May	393	443	929	17	277	0	664	317	124	3,164	1,792
June	390	380	865	60	355	0	519	248	118	2,934	1,736
July	333	251	1,073	80	340	0	651	502	38	3,269	1,757
August	348	274	1,068	61	377	0	321	514	84	3,047	1,751
September	336	154	1,451	96	371	0	323	359	149	3,238	2,036
October	242	147	1,342	90	427	0	412	383	172	3,214	1,820
November	185	132	1,236	112	353	0	517	487	55	3,077	1,665
December	176	122	1,075	158	395	0	698	415	102	3,141	1,532
<b>AVERAGE</b>	<b>310</b>	<b>320</b>	<b>1,128</b>	<b>83</b>	<b>364</b>	<b>0</b>	<b>622</b>	<b>404</b>	<b>88</b>	<b>3,318</b>	<b>1,848</b>
<b>1982</b>											
January	254	161	877	87	273	0	662	376	128	2,818	1,378
February	139	92	692	79	236	0	579	347	102	2,267	1,044
March	91	37	555	155	200	0	503	399	91	2,032	860
<b>AVERAGE</b>	<b>162</b>	<b>97</b>	<b>709</b>	<b>108</b>	<b>236</b>	<b>0</b>	<b>582</b>	<b>375</b>	<b>107</b>	<b>2,376</b>	<b>1,096</b>

<sup>1</sup> Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

<sup>2</sup> Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

Totals may not equal sum of components due to independent rounding.

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Geographic coverage: The 50 United States and the District of Columbia, including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Crude Oil and Petroleum Product Imports from Non-OPEC Sources

	Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico <sup>1</sup>	Virgin Islands <sup>1</sup>	Other <sup>2</sup>	Total
	Thousand Barrels per Day									
<b>1973</b>										
<b>AVERAGE</b>	174	1,325	16	585	255	15	99	329	465	3,263
<b>1974</b>										
<b>AVERAGE</b>	164	1,070	8	511	251	8	90	391	340	2,832
<b>1975</b>										
<b>AVERAGE</b>	152	846	71	332	242	14	90	406	300	2,454
<b>1976</b>										
<b>AVERAGE</b>	118	599	87	275	274	31	88	422	353	2,247
<b>1977</b>										
<b>AVERAGE</b>	171	517	179	211	289	126	105	466	550	2,614
<b>1978</b>										
<b>AVERAGE</b>	160	467	318	229	253	180	94	429	484	2,613
<b>1979</b>										
<b>AVERAGE</b>	147	538	439	231	190	202	92	431	548	2,819
<b>1980</b>										
January	175	570	545	289	239	296	57	467	492	3,131
February	111	540	477	205	192	105	95	536	652	2,914
March	124	460	460	184	189	232	101	449	601	2,800
April	56	459	546	231	143	182	76	425	619	2,737
May	77	419	576	176	221	124	88	303	496	2,481
June	77	409	627	197	162	146	91	314	465	2,486
July	43	378	460	242	180	115	90	378	376	2,262
August	62	319	646	255	159	196	85	264	463	2,449
September	58	458	550	213	205	218	52	343	473	2,569
October	70	475	605	230	114	134	107	372	450	2,557
November	22	470	459	264	158	157	108	391	435	2,464
December	54	502	445	212	149	199	109	423	378	2,471
<b>AVERAGE</b>	<b>78</b>	<b>455</b>	<b>533</b>	<b>225</b>	<b>176</b>	<b>176</b>	<b>88</b>	<b>388</b>	<b>491</b>	<b>2,609</b>
<b>1981</b>										
January	39	543	401	197	150	219	89	494	553	2,686
February	84	546	437	227	163	271	46	481	626	2,881
March	74	471	488	227	93	263	45	370	570	2,600
April	68	410	440	198	139	402	40	365	404	2,450
May	122	366	522	213	105	352	58	344	455	2,538
June	51	352	537	196	124	397	67	262	502	2,488
July	77	381	384	212	177	558	50	206	495	2,540
August	69	378	489	255	123	592	68	184	533	2,691
September	111	419	708	163	169	528	72	265	653	3,084
October	63	446	668	153	121	351	60	303	559	2,725
November	53	540	612	168	108	253	76	294	429	2,533
December	70	499	588	148	125	290	73	367	595	2,755
<b>AVERAGE</b>	<b>73</b>	<b>445</b>	<b>523</b>	<b>196</b>	<b>133</b>	<b>374</b>	<b>62</b>	<b>327</b>	<b>531</b>	<b>2,663</b>
<b>1982</b>										
January	28	509	426	179	106	346	62	334	425	2,415
February	50	533	489	221	120	132	38	354	487	2,424
March	43	435	503	189	118	293	62	307	479	2,429
<b>AVERAGE</b>	<b>40</b>	<b>491</b>	<b>472</b>	<b>195</b>	<b>114</b>	<b>261</b>	<b>55</b>	<b>331</b>	<b>463</b>	<b>2,423</b>

<sup>1</sup> U.S. Possessions.

<sup>2</sup> Includes all Non-OPEC countries except those shown above.

Totals may not equal sum of components due to independent rounding.

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Geographic coverage: The 50 United States and the District of Columbia, including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

## Sources

- \* 1973 through 1976: Bureau of Mines, U.S. Department of the Interior, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual", Mineral Industry Surveys.
- \* 1977 through 1980: Energy Administration, U.S. Department of Energy, "Monthly Petroleum Statistics Report", (unleaded gasoline category)
- \* 1977 through 1980: Energy Information Administration, U.S. Department of Energy, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual", Energy Data Reports.
- \* January 1981 through December 1981: Energy Information Administration, U.S. Department of Energy, "Monthly Petroleum Statement".
- \* January 1982 through March 1982: Detailed Statistics in this issue. (See Explanatory Notes 5.1 through 5.6).
- \* April 1982: Estimates are based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 2.2).
- \* January 1982 through April 1982: Domestic crude oil production



## Detailed Statistics





Table 1. U.S. Petroleum Balance, March 1982

	Current Month		Year-to-Date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Crude Oil (Including Lease Condensate)				
Field Production				
(1) Alaska .....	E 52,777	1,702	E 153,850	1,709
(2) Lower 48 States .....	E 213,736	6,895	E 624,712	6,941
(3) Total U.S. ....	E 266,513	8,597	E 778,562	8,651
Net Imports				
(4) Imports (Gross Excluding SPR) .....	82,789	2,671	268,719	2,986
(5) SPR Imports .....	5,738	185	15,472	172
(6) Exports .....	9,950	321	25,854	287
(7) Imports (Net Including SPR) .....	78,578	2,535	258,338	2,870
Other Sources				
(8) SPR Withdrawal (+) or Addition (-) .....	-7,296	-235	-18,196	-202
(9) Other Stock Withdrawal (+) or Addition (-) .....	5,281	170	2,811	31
(10) Used Directly and Losses .....	-2,105	-68	-5,995	-67
(11) Unaccounted for <sup>1</sup> .....	8,615	278	9,896	110
(12) Total Other Sources .....	4,495	145	-11,484	-128
(13) Crude Input to Refineries .....	349,586	11,277	1,025,416	11,394
(13) = (3) + (7) + (12)				
Natural Gas Plant Liquids (NGPL)				
(14) Field Production .....	48,675	1,570	139,332	1,548
(15) Imports <sup>2</sup> .....	187	6	789	9
(16) Stock Withdrawal (+) or Addition (-) <sup>2</sup> .....	-284	-9	-2,244	-25
(17) Total NGPL Supply .....	48,578	1,567	137,877	1,532
Other Liquids				
Unfinished Oils and Gasoline Blending Components, Total				
(18) Stock Withdrawal (+) or Addition (-) .....	746	24	-4,456	-50
(19) Imports .....	4,206	136	14,032	156
(20) Other Hydrocarbons and Alcohol New Supply (Field Production) .....	1,398	45	3,959	44
(21) Refinery Processing Gain <sup>1</sup> .....	15,836	511	45,910	510
(22) Crude Used Directly .....	1,949	63	5,682	63
(23) Total Other Liquids .....	24,135	779	65,127	724
(23) = (18) through (22)				
(24) Total Production of Products <sup>3</sup> .....	422,298	13,623	1,228,420	13,649
(24) = (13) + (17) + (23)				
Net Imports of Refined Products <sup>3</sup>				
(25) Imports (Gross) .....	45,379	1,464	132,836	1,476
(26) Exports .....	17,393	561	49,689	552
(27) Imports (Net) .....	27,986	903	83,147	924
(28) Total New Supply of Products .....	450,284	14,525	1,311,567	14,573
(28) = (24) + (27)				
(29) Refined Products Stock Withdrawal (+) or Addition (-) <sup>3</sup> .....	32,063	1,034	109,716	1,219
(30) Total Petroleum Products Supplied for Domestic Use .....	482,347	15,560	1,421,282	15,792
(30) = (28) + (29)				
(31) Finished Motor Gasoline .....	204,976	6,612	558,461	6,205
(32) Naphtha-Type Jet Fuel .....	6,388	206	17,316	192
(33) Kerosene-Type Jet Fuel .....	23,928	772	73,854	821
(34) Kerosene .....	3,631	117	15,030	167
(35) Distillate Fuel Oil .....	89,304	2,881	284,271	3,159
(36) Residual Fuel Oil .....	59,259	1,912	189,221	2,102
(37) Liquefied Petroleum Gases and Ethane .....	47,362	1,528	153,007	1,700
(38) Other .....	57,170	1,844	158,220	1,758
(39) Total Reclassified <sup>1</sup> .....	-9,672	-312	-28,098	-312
(40) Total Product Supplied .....	482,347	15,560	1,421,282	15,792
(40) = (31) through (39)				
Ending Stocks, All Oils				
(41) Crude Oil and Lease Condensate (Excluding SPR) .....	365,689	--	--	--
(42) Strategic Petroleum Reserve (SPR) .....	248,537	--	--	--
(43) Unfinished Oils .....	115,833	--	--	--
(44) Gasoline Blending Components .....	49,932	--	--	--
(45) Natural Gasoline and Unfractionated Stream .....	17,768	--	--	--
(46) Finished Refined Products <sup>3</sup> .....	603,143	--	--	--
(47) Total Stocks .....	1,400,902	--	--	--

<sup>1</sup> A balancing item.<sup>2</sup> Includes isopentane, natural gasoline, unfractionated stream, and plant condensate only.<sup>3</sup> For products included see Explanatory Note 5.7.

E = Estimated.

-- Not Applicable.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1, 2, and 5.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, March 1982  
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Supply			Crude Used Directly and Losses <sup>2</sup>	Disposition			Ending Stocks
			Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>		Refinery Inputs	Exports	Products Supplied	
<b>Crude Oil (including lease condensate)</b> .....	<b>E 266,513</b>	<b>0</b>	<b>88,528</b>	<b>-2,015</b>	<b>8,615</b>	<b>-2,105</b>	<b>349,586</b>	<b>9,950</b>	<b>0</b>	<b>614,226</b>
<b>Natural Gas Plant Liquids and LRGs</b> .....	<b>47,910</b>	<b>7,972</b>	<b>7,099</b>	<b>4,223</b>	<b>0</b>	<b>0</b>	<b>15,704</b>	<b>2,308</b>	<b>49,192</b>	<b>126,764</b>
Natural Gasoline and Isopentane .....	7,307	0	(s)	-20	0	0	5,479	0	1,808	11,449
Unfractionated Stream .....	257	0	0	-238	0	0	0	0	19	4,788
Plant Condensate .....	1,106	0	186	-26	0	0	1,263	0	3	1,532
Liquefied Petroleum Gases and Ethane .....	39,241	7,972	6,913	4,506	0	0	8,962	2,308	47,362	108,996
Ethane .....	8,332	222	1,812	-90	0	0	191	(s)	10,085	5,672
Propane .....	14,415	7,599	1,873	968	0	0	113	1,135	23,607	60,333
Butane .....	6,566	58	1,292	3,084	0	0	4,605	1,174	5,220	17,307
Butane-Propane Mixtures .....	106	92	425	157	0	0	148	0	631	989
Ethane-Propane Mixtures .....	6,414	0	1,512	-107	0	0	0	0	7,819	16,986
Isobutane .....	3,410	1	0	494	0	0	3,905	0	(s)	7,709
<b>Other Liquids</b> .....	<b>1,398</b>	<b>0</b>	<b>4,206</b>	<b>746</b>	<b>0</b>	<b>0</b>	<b>16,022</b>	<b>0</b>	<b>-9,672</b>	<b>165,765</b>
Other Hydrocarbons and Alcohol .....	1,398	0	0	-8	0	0	1,390	0	0	183
Unfinished Oils .....	0	0	3,614	1,089	0	0	9,500	0	-4,797	115,833
Motor Gasoline Blending Components .....	0	0	592	-324	0	0	5,240	0	-4,972	49,091
Aviation Gasoline Blending Components .....	0	0	0	-11	0	0	-108	0	97	658
<b>Finished Petroleum Products</b> .....	<b>765</b>	<b>389,176</b>	<b>38,466</b>	<b>27,557</b>	<b>0</b>	<b>1,949</b>	<b>0</b>	<b>15,085</b>	<b>442,828</b>	<b>494,147</b>
Finished Motor Gasoline .....	72	186,041	5,680	14,550	0	0	0	1,367	204,976	198,819
Finished Leaded Motor Gasoline .....	70	89,986	3,385	7,617	0	0	0	1,367	99,691	102,143
Finished Unleaded Motor Gasoline .....	3	95,955	2,296	6,904	0	0	0	0	105,157	96,622
Gasohol .....	0	100	0	28	0	0	0	0	128	54
Finished Aviation Gasoline .....	57	633	0	87	0	0	0	0	777	2,641
Naphtha-Type Jet Fuel .....	0	6,806	0	-418	0	0	0	(s)	6,388	6,445
Kerosene-Type Jet Fuel .....	0	27,927	1,200	-5,119	0	0	0	80	23,928	36,081
Kerosene .....	3	3,264	49	316	0	0	0	1	3,631	8,763
Distillate Fuel Oil .....	3	71,123	1,495	18,979	0	310	0	2,607	89,304	127,732
Residual Fuel Oil .....	0	34,736	28,198	800	0	1,639	0	6,113	59,259	57,349
Naphtha < 400 Deg. for Petro. Feed. Use .....	0	5,675	74	-514	0	0	0	167	5,068	3,149
Other Oils > 400 Deg. for Petro. Feed. Use .....	111	8,206	0	14	0	0	0	304	7,916	1,650
Special Naphthas .....	0	1,691	1,635	-21	0	0	0	256	3,160	3,759
Lubricants .....	0	4,254	114	553	0	0	0	692	4,229	13,705
Waxes .....	0	446	8	-2	0	0	0	36	416	665
Petroleum Coke .....	0	12,754	0	-226	0	0	0	3,411	9,117	4,694
Asphalt .....	0	7,046	1	-1,789	0	0	0	12	5,247	26,085
Road Oil .....	0	34	0	-20	0	0	0	0	14	38
Still Gas .....	0	16,721	0	0	0	0	0	0	16,721	0
Miscellaneous Products .....	517	1,819	13	367	0	0	0	40	2,676	2,573
<b>Total</b> .....	<b>316,586</b>	<b>397,148</b>	<b>138,299</b>	<b>30,510</b>	<b>8,615</b>	<b>-156</b>	<b>381,312</b>	<b>27,343</b>	<b>482,347</b>	<b>1,400,902</b>

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

(s) Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 3. Year-to-Date Supply and Disposition Statistics of Crude Oil and Petroleum Products, January - March 1982  
(Thousands of Barrels)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	778,562	0	284,191	-15,385	9,896	-5,995	1,025,416	25,854	0	614,226
Natural Gas Plant Liquids and LRGs	137,622	22,142	25,558	25,806	0	0	48,334	5,819	156,976	126,764
Natural Gasoline and Isopentane	19,910	0	313	-1,903	0	0	14,363	0	3,956	11,449
Unfractionated Stream	396	0	0	-383	0	0	8	0	6	4,788
Plant Condensate	2,989	0	476	42	0	0	3,500	0	7	1,532
Liquefied Petroleum Gases and Ethane	114,327	22,142	24,770	28,050	0	0	30,463	5,819	153,007	108,996
Ethane	24,537	562	5,677	-732	0	0	695	(s)	29,348	5,672
Propane	42,658	21,299	6,979	16,967	0	0	354	2,467	85,082	60,333
Butane	19,337	144	5,434	10,424	0	0	18,477	3,352	13,511	17,307
Butane-Propane Mixtures	300	123	1,888	758	0	0	465	0	2,605	989
Ethane-Propane Mixtures	17,928	0	4,792	-270	0	0	0	0	22,450	16,986
Isobutane	9,566	14	0	903	0	0	10,472	0	11	7,709
Other Liquids	3,959	0	14,032	-4,456	0	0	41,633	0	-28,098	165,765
Other Hydrocarbons and Alcohol	3,959	0	0	39	0	0	3,998	0	0	183
Unfinished Oils	0	0	11,184	-3,790	0	0	19,283	0	-11,889	115,833
Motor Gasoline Blending Components	0	0	2,848	-738	0	0	18,491	0	-16,381	49,091
Aviation Gasoline Blending Components	0	0	0	33	0	0	-139	0	172	658
Finished Petroleum Products	1,710	1,139,151	108,066	81,666	0	5,682	0	43,871	1,292,404	494,147
Finished Motor Gasoline	229	543,186	12,953	4,243	0	0	0	2,150	558,461	198,819
Finished Leaded Motor Gasoline	214	259,681	7,317	6,025	0	0	0	2,150	271,086	102,143
Finished Unleaded Motor Gasoline	16	283,177	5,636	-1,787	0	0	0	0	287,042	96,622
Gasohol	0	328	0	5	0	0	0	0	333	54
Finished Aviation Gasoline	130	1,782	0	92	0	0	0	0	2,004	2,641
Naphtha-Type Jet Fuel	0	16,735	101	480	0	0	0	(s)	17,316	6,445
Kerosene-Type Jet Fuel	0	73,804	3,166	-2,536	0	0	0	580	73,854	36,081
Kerosene	13	11,971	977	2,322	0	0	0	252	15,030	8,763
Distillate Fuel Oil	10	220,688	8,111	62,444	0	929	0	7,911	284,271	127,732
Residual Fuel Oil	0	103,225	79,615	20,999	0	4,753	0	19,371	189,221	57,349
Naphtha < 400 Deg. for Petro. Feed	0	15,587	459	-631	0	0	0	342	15,073	3,149
Other Oils > 400 Deg. for Petrochem. Feedstock	0	24,591	0	100	0	0	0	1,613	23,078	1,650
Special Naphthas	205	4,415	1,965	199	0	0	0	585	3,759	13,705
Lubricants	0	12,611	581	520	0	0	0	1,422	12,290	665
Waxes	0	1,286	53	5	0	0	0	73	1,271	4,694
Petroleum Coke	0	35,893	0	-195	0	0	0	9,418	26,280	26,085
Asphalt	0	18,963	60	-6,566	0	0	0	26	12,431	38
Road Oil	0	43	0	-14	0	0	0	0	29	0
Still Gas	0	47,036	0	0	0	0	0	0	47,036	0
Miscellaneous Products	1,123	7,335	26	204	0	0	0	128	8,560	2,573
Total	921,853	1,161,293	431,848	87,631	9,896	-313	1,115,383	75,543	1,421,282	1,400,902

<sup>1</sup> Unaccounted for crude oil is a balancing item

<sup>2</sup> Total equals refinery fuel use and loss.

(s) Less than 500 barrels or less than 500 barrels per day.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures See Explanatory Notes on Data Collection and Estimation.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, March 1982  
(Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal(+) Addition(-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate) .....	E 8,597	0	2,856	-65	278	-68	11,277	321	0
Natural Gas Plant Liquids and LRGs .....	1,545	257	229	136	0	0	507	74	1,587
Natural Gasoline and Isopentane .....	236	0	(s)	-1	0	0	177	0	58
Unfractionated Stream .....	8	0	0	-8	0	0	0	0	1
Plant Condensate .....	36	0	6	-1	0	0	41	0	(s)
Liquefied Petroleum Gases and Ethane .....	1,266	257	223	145	0	0	289	74	1,528
Ethane .....	269	7	58	-3	0	0	6	(s)	325
Propane .....	465	245	60	31	0	0	4	37	762
Butane .....	212	2	42	99	0	0	149	38	168
Butane-Propane Mixtures .....	3	3	14	5	0	0	5	0	20
Ethane-Propane Mixtures .....	207	0	49	-3	0	0	0	0	252
Isobutane .....	110	(s)	0	16	0	0	126	0	(s)
Other Liquids .....	45	0	136	24	0	0	517	0	-312
Other Hydrocarbons and Alcohol .....	45	0	0	(s)	0	0	45	0	0
Unfinished Oils .....	0	0	117	35	0	0	306	0	-155
Motor Gasoline Blending Components .....	0	0	19	-10	0	0	169	0	-160
Aviation Gasoline Blending Components .....	0	0	0	(s)	0	0	-3	0	3
Finished Petroleum Products .....	25	12,554	1,241	889	0	63	0	487	14,285
Finished Motor Gasoline .....	2	6,001	183	469	0	0	0	44	6,612
Finished Leaded Motor Gasoline .....	2	2,903	109	246	0	0	0	44	3,216
Finished Unleaded Motor Gasoline .....	(s)	3,095	74	223	0	0	0	0	3,392
Gasohol .....	0	3	0	1	0	0	0	0	4
Finished Aviation Gasoline .....	2	20	0	3	0	0	0	0	25
Naphtha-Type Jet Fuel .....	0	220	0	-13	0	0	0	(s)	206
Kerosene-Type Jet Fuel .....	0	901	39	-165	0	0	0	3	772
Kerosene .....	(s)	105	2	10	0	0	0	(s)	117
Distillate Fuel Oil .....	(s)	2,294	48	612	0	10	0	84	2,881
Residual Fuel Oil .....	0	1,121	910	26	0	53	0	197	1,912
Naphtha < 400 Deg. for Petro. Feed. Use .....	0	183	2	-17	0	0	0	5	163
Other Oils > 400 Deg. for Petro. Feed. Use .....	0	265	0	(s)	0	0	0	10	255
Special Naphthas .....	4	55	53	-1	0	0	0	8	102
Lubricants .....	0	137	4	18	0	0	0	22	136
Waxes .....	0	14	(s)	(s)	0	0	0	1	13
Petroleum Coke .....	0	411	0	-7	0	0	0	110	294
Asphalt .....	0	227	(s)	-58	0	0	0	(s)	169
Road Oil .....	0	1	0	-1	0	0	0	0	(s)
Still Gas .....	0	539	0	0	0	0	0	0	539
Miscellaneous Products .....	17	59	(s)	12	0	0	0	1	86
Total .....	10,212	12,811	4,461	984	278	-5	12,300	882	15,560

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

(s) Less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January - March 1982  
(Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,651	0	3,158	-171	110	-67	11,394	287	0
Natural Gas Plant Liquids and LRGs	1,529	246	284	287	0	0	537	65	1,744
Natural Gasoline and Isopentane	221	0	3	-21	0	0	160	0	44
Unfractionated Stream	4	0	0	-4	0	0	(s)	0	(s)
Plant Condensate	33	0	5	(s)	0	0	39	0	(s)
Liquefied Petroleum Gases and Ethane	1,270	246	275	312	0	0	338	65	1,700
Ethane	273	6	63	-8	0	0	8	(s)	326
Propane	474	237	78	189	0	0	4	27	945
Butane	215	2	60	116	0	0	205	37	150
Butane-Propane Mixtures	3	1	21	8	0	0	5	0	29
Ethane-Propane Mixtures	199	0	53	-3	0	0	0	0	249
Isobutane	106	(s)	0	10	0	0	116	0	(s)
Other Liquids	44	0	156	-50	0	0	463	0	-312
Other Hydrocarbons and Alcohol	44	0	0	(s)	0	0	44	0	0
Unfinished Oils	0	0	124	-42	0	0	214	0	-132
Motor Gasoline Blending Components	0	0	32	-8	0	0	205	0	-182
Aviation Gasoline Blending Components	0	0	0	(s)	0	0	-2	0	2
Finished Petroleum Products	19	12,657	1,201	907	0	63	0	487	14,360
Finished Motor Gasoline	3	6,035	144	47	0	0	0	24	6,205
Finished Leaded Motor Gasoline	2	2,885	81	67	0	0	0	24	3,012
Finished Unleaded Motor Gasoline	(s)	3,146	63	-20	0	0	0	0	3,189
Gasohol	0	4	0	(s)	0	0	0	0	4
Finished Aviation Gasoline	1	20	0	1	0	0	0	0	22
Naphtha-Type Jet Fuel	0	186	1	5	0	0	0	(s)	192
Kerosene-Type Jet Fuel	0	820	35	-28	0	0	0	6	821
Kerosene	(s)	133	11	26	0	0	0	3	167
Distillate Fuel Oil	(s)	2,452	90	694	0	10	0	88	3,159
Residual Fuel Oil	0	1,147	885	233	0	53	0	215	2,102
Naphtha < 400 Deg. for Petro. Feed. Use	0	173	5	-7	0	0	0	4	167
Other Oils > 400 Deg. for Petro. Feed. Use	0	273	0	1	0	0	0	18	256
Special Naphthas	2	49	22	2	0	0	0	6	69
Lubricants	0	140	6	6	0	0	0	16	137
Waxes	0	14	1	(s)	0	0	0	1	14
Petroleum Coke	0	399	0	-2	0	0	0	105	292
Asphalt	0	211	1	-73	0	0	0	(s)	138
Road Oil	0	(s)	0	(s)	0	0	0	0	(s)
Still Gas	0	523	0	0	0	0	0	0	523
Miscellaneous Products	12	81	(s)	2	0	0	0	1	95
Total	10,243	12,903	4,798	974	110	-3	12,393	839	15,792

<sup>1</sup> Unaccounted for crude oil is a balancing item

<sup>2</sup> Total equals refinery fuel use and loss.

(s) Less than 500 barrels per day

E Estimated

Note: Total may not equal sum of components due to independent rounding  
Sources and estimation procedures See Explanatory Notes on Data Collection and Estimation

Table 6. PAD District I, Supply and Disposition of Crude Oil and Petroleum Products, March 1982  
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply			Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Refinery Inputs	Disposition		Ending Stocks
				Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>					Exports	Products Supplied	
<b>Crude Oil (including lease condensate)</b> .....	<b>E 2,790</b>	<b>0</b>	<b>28,160</b>	<b>725</b>	<b>1,871</b>	<b>0</b>	<b>0</b>	<b>3,684</b>	<b>37,230</b>	<b>0</b>	<b>0</b>	<b>18,732</b>
<b>Natural Gas Plant Liquids and LRGs</b> .....	<b>1,172</b>	<b>1,280</b>	<b>416</b>	<b>1,233</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,397</b>	<b>324</b>	<b>70</b>	<b>6,103</b>	<b>2,599</b>
Liquefied Petroleum Gases .....	482	1,280	415	302	0	0	0	2,397	293	70	4,513	2,579
Ethane .....	374	0	0	919	0	0	0	0	0	(s)	1,293	0
Other Products <sup>3</sup> .....	316	0	(s)	12	0	0	0	0	31	0	297	20
<b>Other Liquids</b> .....	<b>110</b>	<b>0</b>	<b>1,565</b>	<b>-880</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,618</b>	<b>3,078</b>	<b>0</b>	<b>-665</b>	<b>21,355</b>
Other Hydrocarbons and Alcohol .....	110	0	0	4	0	0	0	0	114	0	0	4
Unfinished Oils .....	0	0	1,552	-651	0	0	0	1,618	2,819	0	-300	15,265
Motor Gasoline Blending Components .....	0	0	13	-233	0	0	0	0	145	0	-365	6,086
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0	0
<b>Finished Petroleum Products</b> .....	<b>64</b>	<b>41,288</b>	<b>32,183</b>	<b>14,516</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>70,605</b>	<b>0</b>	<b>575</b>	<b>158,081</b>	<b>157,151</b>
Finished Motor Gasoline .....	64	18,714	4,636	2,654	0	0	0	40,226	0	1	66,293	61,077
Finished Leaded Motor Gasoline .....	64	8,298	2,703	1,622	0	0	0	17,450	0	1	30,136	28,768
Finished Unleaded Motor Gasoline .....	0	10,416	1,933	1,035	0	0	0	22,776	0	0	36,160	32,291
Gasohol .....	0	0	0	-3	0	0	0	0	0	0	-3	18
Finished Aviation Gasoline .....	0	9	0	4	0	0	0	404	0	0	417	444
Naphtha-Type Jet Fuel .....	0	743	0	111	0	0	0	477	0	(s)	1,331	602
Kerosene-Type Jet Fuel .....	0	1,452	1,200	-1,709	0	0	0	8,358	0	0	9,301	9,045
Kerosene .....	0	96	49	419	0	0	0	1,039	0	1	1,602	3,876
Distillate Fuel Oil .....	0	9,231	1,137	13,461	0	0	0	15,162	0	1	38,991	44,930
Residual Fuel Oil .....	0	5,388	24,060	62	0	0	0	3,283	0	225	32,568	24,829
Naphtha and Other Oils for Petrochem. ....	0	437	36	-64	0	0	0	-22	0	56	331	361
Feedstock .....	0	30	950	6	0	0	0	277	0	2	1,261	1,039
Special Naphthas .....	0	746	109	4	0	0	0	724	0	248	1,335	3,939
Lubricants .....	0	101	2	-12	0	0	0	10	0	5	96	142
Waxes .....	0	1,279	0	-283	0	0	0	0	0	17	979	999
Petroleum Coke .....	0	1,060	1	-167	0	0	0	200	0	5	1,090	5,407
Asphalt .....	0	0	0	0	0	0	0	0	0	0	0	0
Road Oil .....	0	1,653	0	0	0	0	0	0	0	0	1,653	0
Still Gas .....	0	349	2	30	0	0	0	467	0	15	833	461
Miscellaneous Products .....	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b> .....	<b>4,136</b>	<b>42,568</b>	<b>62,323</b>	<b>15,594</b>	<b>1,871</b>	<b>0</b>	<b>0</b>	<b>78,304</b>	<b>40,632</b>	<b>645</b>	<b>163,519</b>	<b>199,837</b>

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

<sup>3</sup> Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.

(s) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 7. PAD District II Supply and Disposition of Crude Oil and Petroleum Products, March 1982  
(Thousands of Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports	Stock Withdraw (+) or Addition (-)	Unac- counted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	29,828	0	13,979	-1,835	41,096	-6	1,000	82,099	1,963	0	83,363
Natural Gas Plant Liquids and LRGs	7,606	2,133	5,168	499	0	0	4,225	5,084	825	13,722	33,241
Liquefied Petroleum Gases	7,340	2,107	3,356	1,443	0	0	3,325	3,443	825	13,303	27,650
Ethane	1,377	26	1,812	-1,059	0	0	0	0	0	2,156	1,768
Other Products <sup>3</sup>	-1,111	0	0	115	0	0	900	1,641	0	-1,737	3,823
Other Liquids	228	0	523	350	0	0	742	2,036	0	-193	32,809
Other Hydrocarbons and Alcohol	228	0	0	-16	0	0	0	212	0	0	92
Unfinished Oils	0	0	51	25	0	0	55	843	0	-712	21,270
Motor Gasoline Blending Components	0	0	472	438	0	0	687	1,078	0	519	11,252
Aviation Gasoline Blending Components	0	0	0	-97	0	0	0	-97	0	0	195
Finished Petroleum Products	17	91,120	722	6,252	0	0	9,646	0	142	107,615	137,235
Finished Motor Gasoline	0	51,544	2	3,817	0	0	7,285	0	25	62,823	63,543
Finished Leaded Motor Gasoline	0	26,509	0	1,940	0	0	3,885	0	25	32,309	34,422
Finished Unleaded Motor Gasoline	0	25,022	2	1,855	0	0	3,400	0	0	30,279	29,100
Gasohol	0	13	0	22	0	0	0	0	0	35	21
Finished Aviation Gasoline	0	115	0	30	0	0	123	0	0	268	648
Naphtha-Type Jet Fuel	0	1,042	0	-107	0	0	89	0	0	1,024	1,174
Kerosene-Type Jet Fuel	0	4,543	0	-905	0	0	935	0	0	4,573	7,569
Kerosene	0	482	0	1	0	0	172	0	(s)	655	2,095
Distillate Fuel Oil	1	17,988	0	3,613	0	0	1,368	0	(s)	22,970	40,198
Residual Fuel Oil	0	3,538	614	331	0	0	-760	0	0	3,723	6,957
Naphtha and Other Oils for Petro Feed	0	1,744	0	-126	0	0	13	0	49	1,582	603
Special Naphthas	0	296	87	97	0	0	286	0	1	765	670
Lubricants	0	819	5	146	0	0	113	0	16	1,067	2,021
Waxes	0	47	5	-4	0	0	0	0	(s)	47	78
Petroleum Coke	0	3,350	0	74	0	0	0	0	49	3,375	935
Asphalt	0	1,951	0	-979	0	0	79	0	(s)	1,051	10,560
Road Oil	0	4	0	-2	0	0	0	0	0	2	13
Still Gas	0	3,761	0	0	0	0	0	0	0	3,761	0
Miscellaneous Products	15	-104	9	267	0	0	-57	0	1	129	171
total	37,678	93,253	20,392	5,267	41,096	-6	15,613	89,219	2,931	121,144	286,649

<sup>1</sup> Unaccounted for crude oil is a balancing item

<sup>2</sup> Total equals refinery fuel use and loss

<sup>3</sup> Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.

(s) Less than 500 barrels

E Estimated

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation

Table 8. PAD District III Supply and Disposition of Crude Oil and Petroleum Products, March 1982  
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Disposition			Ending Stocks
								Refinery Inputs	Exports	Products Supplied	
<b>Crude Oil (including lease condensate)</b> .....	<b>E 128,858</b>	<b>0</b>	<b>40,565</b>	<b>-2,429</b>	<b>-27,138</b>	<b>-125</b>	<b>17,266</b>	<b>156,997</b>	<b>0</b>	<b>0</b>	<b>409,933</b>
<b>Natural Gas Plant Liquids and LRGs</b> .....	<b>36,320</b>	<b>3,360</b>	<b>425</b>	<b>2,473</b>	<b>0</b>	<b>0</b>	<b>-6,407</b>	<b>8,515</b>	<b>1,261</b>	<b>26,395</b>	<b>88,213</b>
Liquefied Petroleum Gases .....	21,992	3,179	425	2,740	0	0	-5,839	3,844	1,261	17,392	70,818
Ethane .....	6,559	181	0	50	0	0	0	191	(s)	6,600	3,904
Other Products <sup>3</sup> .....	7,769	0	0	-318	0	0	-568	4,480	0	2,403	13,492
<b>Other Liquids</b> .....	<b>425</b>	<b>0</b>	<b>1,855</b>	<b>926</b>	<b>0</b>	<b>0</b>	<b>-2,527</b>	<b>9,266</b>	<b>0</b>	<b>-8,587</b>	<b>68,996</b>
Other Hydrocarbons and Alcohol .....	425	0	0	6	0	0	0	431	0	0	82
Unfinished Oils .....	0	0	1,802	1,790	0	0	-1,840	4,906	0	-3,154	49,707
Motor Gasoline Blending Components .....	0	0	54	-1,025	0	0	-687	3,871	0	-5,529	18,900
Aviation Gasoline Blending Components .....	0	0	0	155	0	0	0	58	0	97	307
<b>Finished Petroleum Products</b> .....	<b>655</b>	<b>177,613</b>	<b>3,270</b>	<b>-1,226</b>	<b>0</b>	<b>6</b>	<b>-83,392</b>	<b>0</b>	<b>8,805</b>	<b>88,121</b>	<b>127,855</b>
Finished Motor Gasoline .....	5	81,166	(s)	2,256	0	0	-49,655	0	1,086	32,686	49,146
Finished Leaded Motor Gasoline .....	4	38,056	(s)	860	0	0	-22,508	0	1,086	15,326	25,274
Finished Unleaded Motor Gasoline .....	1	43,110	0	1,391	0	0	-27,147	0	0	17,355	23,868
Gasohol .....	0	0	0	5	0	0	0	0	0	5	4
Finished Aviation Gasoline .....	57	379	0	-49	0	0	-546	0	0	-159	897
Naphtha-Type Jet Fuel .....	0	2,858	0	-361	0	0	-723	0	0	1,774	2,995
Kerosene-Type Jet Fuel .....	0	14,347	0	-1,976	0	0	-10,040	0	0	2,331	11,849
Kerosene .....	3	2,444	0	-101	0	0	-1,211	0	0	1,135	2,558
Distillate Fuel Oil .....	1	31,938	197	-766	0	6	-16,941	0	1,394	13,041	27,469
Residual Fuel Oil .....	0	13,736	2,816	-336	0	0	-2,187	0	4,110	9,919	14,687
Naphtha and Other Oils for Petro. Feed .....	0	11,330	34	-298	0	0	9	0	352	10,723	3,437
Special Naphthas .....	111	1,183	222	-46	0	0	-563	0	253	654	1,703
Lubricants .....	0	2,319	(s)	384	0	0	-879	0	375	1,449	6,235
Waxes .....	0	232	1	9	0	0	-10	0	26	206	383
Petroleum Coke .....	0	4,682	0	-90	0	0	0	0	1,188	3,404	666
Asphalt .....	0	2,131	0	-49	0	0	-279	0	3	1,800	4,317
Road Oil .....	0	0	0	0	0	0	0	0	0	0	2
Still Gas .....	0	7,570	0	0	0	0	0	0	0	7,570	0
Miscellaneous Products .....	477	1,298	1	197	0	0	-367	0	20	1,587	1,511
<b>Total</b> .....	<b>166,258</b>	<b>180,973</b>	<b>46,115</b>	<b>-256</b>	<b>-27,138</b>	<b>-119</b>	<b>-75,060</b>	<b>174,778</b>	<b>10,066</b>	<b>105,930</b>	<b>694,997</b>

<sup>1</sup> Unaccounted for crude oil is a balancing item.<sup>2</sup> Total equals refinery fuel use and loss.<sup>3</sup> Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.

(s) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 9. PAD District IV Supply and Disposition of Crude Oil and Petroleum Products, March 1982  
(Thousands of Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unac- counted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 18,439	0	628	-314	-6,838	-11	0	11,904	0	0	16,080
Natural Gas Plant Liquids and LRGs	2,204	-7	594	128	0	0	-215	608	0	2,096	1,148
Liquefied Petroleum Gases	791	-7	451	71	0	0	117	339	0	1,084	903
Ethane	22	0	0	(s)	0	0	0	0	0	22	(s)
Other Products <sup>3</sup>	1,392	0	143	56	0	0	-332	269	0	990	244
Other Liquids	60	0	53	-206	0	0	0	-644	0	551	6,842
Other Hydrocarbons and Alcohol	60	0	0	0	0	0	0	60	0	0	1
Unfinished Oils	0	0	0	-48	0	0	0	-484	0	436	3,208
Motor Gasoline Blending Components	0	0	53	-158	0	0	0	-220	0	115	3,633
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	29	12,012	1	-79	0	10	954	0	3	12,924	15,650
Finished Motor Gasoline	3	6,295	0	-61	0	0	533	0	0	6,770	6,497
Finished Leaded Motor Gasoline	2	4,042	0	-31	0	0	156	0	0	4,169	4,259
Finished Unleaded Motor Gasoline	1	2,253	0	-31	0	0	377	0	0	2,600	2,236
Gasohol	0	0	0	1	0	0	0	0	0	1	2
Finished Aviation Gasoline	0	15	0	2	0	0	19	0	0	36	62
Naphtha-Type Jet Fuel	0	413	0	-1	0	0	-87	0	0	325	294
Kerosene-Type Jet Fuel	0	571	0	-85	0	0	540	0	0	1,026	624
Kerosene	0	47	0	1	0	0	0	0	0	48	74
Distillate Fuel Oil	1	2,948	(s)	209	0	0	-51	0	0	3,107	3,697
Residual Fuel Oil	0	312	0	119	0	10	0	0	0	441	550
Naphtha and Other Oils for Petro. Feed	0	0	0	0	0	0	0	0	1	-1	0
Special Naphthas	0	1	0	4	0	0	0	0	0	5	2
Lubricants	0	2	(s)	25	0	0	0	0	1	26	95
Waxes	0	2	0	-1	0	0	0	0	0	1	6
Petroleum Coke	0	357	0	28	0	0	0	0	0	385	568
Asphalt	0	509	0	-318	0	0	0	0	(s)	191	3,175
Road Oil	0	3	0	0	0	0	0	0	0	3	3
Still Gas	0	515	0	0	0	0	0	0	0	515	0
Miscellaneous Products	25	22	0	-1	0	0	0	0	(s)	45	3
Total	20,732	12,005	1,276	-471	-6,838	-1	739	11,868	3	15,571	39,720

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

<sup>3</sup> Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.

(s) Less than 500 barrels.

E Estimated

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 10. PAD District V Supply and Disposition of Crude Oil and Petroleum Products, March 1982  
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Disposition			Ending Stocks
								Refinery Inputs	Exports	Products Supplied	
<b>Crude Oil (including lease condensate)</b> .....	<b>E 86,598</b>	<b>0</b>	<b>5,196</b>	<b>1,838</b>	<b>-376</b>	<b>-1,963</b>	<b>-21,950</b>	<b>61,356</b>	<b>7,987</b>	<b>0</b>	<b>86,118</b>
<b>Natural Gas Plant Liquids and LRGs</b> .....	<b>608</b>	<b>1,206</b>	<b>497</b>	<b>-110</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,173</b>	<b>152</b>	<b>877</b>	<b>1,563</b>
Liquefied Petroleum Gases .....	305	1,191	454	39	0	0	0	852	152	985	1,374
Ethane .....	0	15	0	0	0	0	0	0	0	15	0
Other Products <sup>3</sup> .....	303	0	43	-148	0	0	0	321	0	-123	189
<b>Other Liquids</b> .....	<b>575</b>	<b>0</b>	<b>209</b>	<b>556</b>	<b>0</b>	<b>0</b>	<b>167</b>	<b>2,286</b>	<b>0</b>	<b>-779</b>	<b>35,763</b>
Other Hydrocarbons and Alcohol .....	575	0	0	-2	0	0	0	573	0	0	4
Unfinished Oils .....	0	0	209	-27	0	0	167	1,416	0	-1,067	26,383
Motor Gasoline Blending Components .....	0	0	0	654	0	0	0	366	0	288	9,220
Aviation Gasoline Blending Components .....	0	0	0	-69	0	0	0	-69	0	0	156
<b>Finished Petroleum Products</b> .....	<b>0</b>	<b>67,143</b>	<b>2,290</b>	<b>8,093</b>	<b>0</b>	<b>1,933</b>	<b>2,187</b>	<b>0</b>	<b>5,559</b>	<b>76,087</b>	<b>56,256</b>
Finished Motor Gasoline .....	0	28,322	1,042	5,883	0	0	1,611	0	254	36,604	18,556
Finished Lead Motor Gasoline .....	0	13,081	681	3,226	0	0	1,017	0	254	17,751	9,420
Finished Unleaded Motor Gasoline .....	0	15,154	361	2,654	0	0	594	0	0	18,763	9,127
Gasohol .....	0	87	0	3	0	0	0	0	0	90	9
Finished Aviation Gasoline .....	0	115	0	100	0	0	0	0	0	215	590
Naphtha-Type Jet Fuel .....	0	1,750	0	-60	0	0	244	0	0	1,934	1,380
Kerosene-Type Jet Fuel .....	0	7,014	0	-444	0	0	207	0	80	6,697	6,994
Kerosene .....	0	195	0	-4	0	0	0	0	(s)	191	160
Distillate Fuel Oil .....	0	9,018	160	2,463	0	304	462	0	1,212	11,195	11,437
Residual Fuel Oil .....	0	11,762	708	624	0	1,629	-336	0	1,778	12,608	10,326
Naphtha and Other Oils for Petro. Feed .....	0	370	4	-12	0	0	0	0	14	348	398
Special Naphthas .....	0	181	376	-82	0	0	0	0	(s)	474	345
Lubricants .....	0	368	(s)	-6	0	0	42	0	52	352	1,415
Waxes .....	0	64	1	6	0	0	0	0	5	67	56
Petroleum Coke .....	0	3,086	0	45	0	0	0	0	2,157	974	1,526
Asphalt .....	0	1,395	0	-276	0	0	0	0	3	1,116	2,626
Road Oil .....	0	27	0	-18	0	0	0	0	0	9	20
Still Gas .....	0	3,222	0	0	0	0	0	0	0	3,222	0
Miscellaneous Products .....	0	254	(s)	-126	0	0	-43	0	4	81	427
<b>Total</b> .....	<b>87,781</b>	<b>68,349</b>	<b>8,192</b>	<b>10,377</b>	<b>-376</b>	<b>-30</b>	<b>-19,596</b>	<b>64,815</b>	<b>13,698</b>	<b>76,185</b>	<b>179,700</b>

1 Unaccounted for crude oil is a balancing item.

2 Total equals refinery fuel use and loss.

3 Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.

(s) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 11. Production of Crude Oil (including Lease Condensate) by PAD District and State, for the Most Current Month,<sup>1</sup> January 1982  
(Thousands of Barrels)

	PAD District and State	Production	
		Total	Daily Average
<b>PAD District I</b>			
Florida .....	2,378	77	
New York .....	E 67	2	
Pennsylvania .....	E 207	7	
Virginia .....	0	0	
West Virginia .....	E 198	6	
<b>Total</b> .....	E 2,850	92	
<b>PAD District II</b>			
Illinois .....	2,140	69	
Indiana .....	E 580	19	
Kansas .....	5,521	178	
Kentucky .....	547	18	
Michigan .....	2,426	78	
Missouri .....	E 7	(s)	
Nebraska .....	560	18	
North Dakota .....	3,526	114	
Ohio .....	E 1,154	37	
Oklahoma .....	13,092	422	
South Dakota .....	97	3	
Tennessee .....	70	2	
<b>Total</b> .....	E 29,720	959	
<b>PAD District III</b>			
Alabama .....	1,634	53	
Arkansas .....	1,576	51	
Louisiana .....			
Gulf Coast .....	34,393	1,109	
Rest Of State .....	2,986	96	
Total Louisiana .....	37,379	1,206	
Mississippi .....	3,667	118	
New Mexico .....			
Northwestern .....	598	19	
Southeastern .....	5,366	173	
Total New Mexico .....	5,964	192	
Texas .....			
TRRC District 01 .....	2,140	69	
TRRC District 02 .....	3,396	110	
TRRC District 03 .....	11,002	355	
TRRC District 04 .....	2,462	79	
TRRC District 05 .....	688	22	
TRRC District 06, excluding East Texas .....	3,600	116	
TRRC District 07B .....	2,648	85	
TRRC District 07C .....	2,777	90	
TRRC District 08 .....	19,413	626	
TRRC District 08A .....	20,775	670	
TRRC District 09 .....	3,074	99	
TRRC District 10 .....	1,801	58	
East Texas .....	4,627	149	
Total Texas .....	78,403	2,529	
<b>Total</b> .....	128,623	4,149	

—Continued

	PAD District and State	Production	
		Total	Daily Average
<b>PAD District IV</b>			
Colorado .....	2,613	84	
Montana .....	2,533	82	
Utah .....	E 2,150	69	
Wyoming .....	E 11,089	358	
<b>Total</b> .....	E 18,385	593	
<b>PAD District V</b>			
Alaska .....	2,398	77	
South Alaska .....	50,450	1,627	
North Slope .....	52,848	1,705	
Total Alaska .....	30	1	
Arizona .....			
California .....	6,368	205	
Central Coastal .....	20,375	657	
East Central .....	16	1	
North .....	6,868	222	
South .....	33,627	1,085	
Total California .....	55	2	
Nevada .....	86,560	2,792	
<b>Total</b> .....	E 266,138	8,565	
<b>United States Total</b> .....			

<sup>1</sup> Includes offshore production.

(s) Less than 500 barrels

Sources: See Explanatory Notes on Data Collection and Estimation

E Estimated

**Table 12. Offshore Production of Crude Oil (Including Lease Condensate) By State, for the Most Current Month,<sup>1</sup> January 1982  
(Thousands of Barrels)**

State	Offshore Production	
	Total	Daily Average
Alaska <sup>2</sup> .....	2,124	69
California .....		
Federal .....	2,275	73
State .....	3,359	108
California, Total .....	5,634	182
Louisiana .....		
Federal .....	21,484	693
State .....	2,056	66
Louisiana, Total .....	23,540	759
Texas .....		
Federal .....	1,097	35
State .....	129	4
Texas, Total .....	1,226	40
<b>United States Total</b> .....	<b>32,524</b>	<b>1,049</b>

<sup>1</sup> These production data are included in Table 11.

<sup>2</sup> All offshore production within State boundaries.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

**Table 13. Production of Lease Condensate by State, for the Most Current Month,<sup>1</sup> January 1982  
(Thousands of Barrels)**

State	Lease Condensate Production	
	Total	Daily Average
Alabama .....	955	31
California .....	15	(s)
Louisiana .....	6,212	200
Mississippi .....	941	30
New Mexico .....	453	15
Oklahoma .....	863	28
Texas .....	3,842	124
<b>Total</b> .....	<b>13,281</b>	<b>428</b>

<sup>1</sup> These production data are included in Table 11. Small amounts of lease condensate are known to be produced in states other than those listed, however, statistics on this production are not available.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 14. Natural Gas Processing Plant Production of Petroleum Products by PAD District,<sup>1</sup> March 1982  
(Thousands of Barrels)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV			United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.		Dist. V West Coast
Natural Gas Plant Liquids	645	527	1,172	3	1,380	291	5,931	7,606	18,499	3,606	9,981	668	3,566	36,320	2,204	608	47,910
Isopentane	0	0	0	0	0	0	260	260	381	33	119	0	0	533	2	0	796
Natural Gasoline	87	34	121	0	76	80	1,071	1,227	2,040	580	1,419	110	311	4,460	384	318	6,511
Unfractionated Stream	0	195	195	3	100	32	-2,846	-2,710	7,586	-9,063	1,071	-15	2,209	1,789	997	-15	257
Plant Condensate	0	0	0	0	83	0	28	111	209	716	123	-63	1	987	8	0	1,106
Liquefied Petroleum Gases and Ethane	558	297	855	0	1,121	179	7,418	8,717	8,283	11,339	7,249	635	1,045	28,551	813	305	39,241
Ethane	220	153	374	0	441	0	937	1,377	1,276	2,702	2,440	63	78	6,559	22	0	8,332
Propane	207	97	303	0	533	116	3,083	3,732	3,080	3,616	2,323	169	502	9,689	500	190	14,415
Butane	113	30	143	0	102	54	1,207	1,363	1,348	1,973	911	240	243	4,715	286	58	6,566
Butane-Propane Mixtures	0	0	0	0	2	0	0	2	58	2	7	0	0	69	2	33	106
Ethane-Propane Mixtures	0	0	0	0	0	0	1,721	1,721	1,814	1,965	780	0	134	4,693	0	0	6,414
Isobutane	18	17	35	0	44	9	470	522	707	1,081	794	155	87	2,825	4	24	3,410
Finished Motor Gasoline	64	0	64	0	0	0	0	0	5	0	0	0	0	5	3	0	72
Finished Leaded Motor Gasoline	64	0	64	0	0	0	0	0	4	0	0	0	0	4	2	0	70
Finished Unleaded Motor Gasoline	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	3
Gasohol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	57	0	0	0	0	57	0	0	57
Naphtha-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	1	0	0	1	2	3	0	0	3
Distillate Fuel Oil	0	0	0	0	0	0	1	1	1	0	0	0	0	1	1	0	3
Special Naphthas	0	0	0	0	0	0	0	0	111	0	0	0	0	111	0	0	111
Miscellaneous Products	0	0	0	0	3	0	13	15	333	2	1	9	132	477	25	0	517
Total Production	709	527	1,236	3	1,382	291	5,945	7,622	19,007	3,608	9,982	677	3,701	36,975	2,233	608	48,675

<sup>1</sup> Production represents quantity of natural gas processing plant output less input to fractionating facilities.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 15. Refinery Input of Crude Oil and Petroleum Products by PAD District, March 1982  
(Thousands of Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV			United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill.,	Wisc., Ky.	Minn., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	West Coast
Crude Oil (including lease condensate) .....	33,959	3,271	37,230	1,737	49,118	6,812	24,432		82,099	14,551	78,517	56,582	4,912	2,435	156,997	11,904	61,356	349,586
Natural Gas Plant Liquids																		
Natural Gasoline and Isopentane .....	29	2	31	0	431	80	988		1,499	844	2,004	420	123	128	3,519	152	278	5,479
Unfractionated Stream .....	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	
Plant Condensate .....	0	0	0	0	125	0	17		142	72	674	2	211	2	961	117	43	1,263
LPG and Ethane .....	272	21	293	109	1,923	400	1,011		3,443	493	1,522	1,819	144	57	4,035	339	852	8,962
Ethane .....	0	0	0	0	0	0	0		0	0	98	93	0	0	191	0	0	191
Propane .....	0	0	0	0	59	0	1		60	0	0	53	0	0	53	0	0	113
Normal Butane .....	123	14	137	50	584	278	335		1,247	120	622	957	44	3	1,746	81	221	3,432
Other Butanes .....	0	0	0	0	256	89	135		480	45	116	6	0	0	161	203	329	1,173
Butane-Propane Mixtures .....	0	0	0	0	4	0	0		4	9	84	6	0	38	137	7	0	148
Ethane-Propane Mixtures .....	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
Isobutane .....	149	7	156	59	1,020	33	540		1,652	319	602	710	100	16	1,747	48	302	3,905
Other Liquids																		
Other Hydrocarbons .....	93	21	114	0	200	0	12		212	4	265	162	0	0	431	60	573	1,390
Alcohol .....	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	
Unfinished Oil (net) .....	2,749	70	2,819	96	170	-138	715		843	-752	3,797	1,648	225	-12	4,906	-484	1,416	9,500
Motor Gasoline Blending Components (net) .....	103	42	145	-12	1,055	69	-34		1,078	158	1,687	1,954	89	-17	3,871	-220	366	5,240
Aviation Gasoline Blending Components (net) .....	0	0	0	0	-86	0	-11		-97	-28	21	65	0	0	58	0	-69	-108
Total Input to Refineries .....	37,205	3,427	40,632	1,930	52,936	7,223	27,130		89,219	15,342	88,487	62,652	5,704	2,593	174,778	11,868	64,815	381,312
Crude Oil Distillation																		
Gross Input (daily average) .....	1,137	107	1,244	63	1,632	233	798		2,726	502	2,614	1,893	171	86	5,265	391	2,042	11,668
Operable Capacity (daily average) .....	1,663	162	1,826	66	2,531	295	1,150		4,042	660	4,447	2,814	290	123	8,334	630	3,140	17,971
Operating Ratio (percent) <sup>1</sup> .....	68.4	65.7	68.2	94.9	64.5	78.9	69.4		67.4	76.0	58.8	67.3	58.7	70.0	63.2	62.0	65.0	64.9
Crude Oil Qualities																		
Sulfur Content, Weighted Average (percent) .....	1.13	.29	1.06	.62	.91	1.68	.70		.91	.57	.97	.81	1.71	.36	.89	.85	1.00	.93
API Gravity, Weighted Average .....	31.88	40.48	32.65	38.90	36.31	30.77	37.89		36.38	38.29	34.67	34.05	32.96	30.96	34.97	36.37	26.11	33.47

<sup>1</sup> Represents gross input divided by operable capacity.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 16. Refinery Production of Petroleum Products by PAD District, March 1982  
(Thousands of Barrels)

Commodity	PAD District I				PAD District II				PAD District III				PAD District IV			United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.		Dist. V
																West Coast	
Liquefied Petroleum Gases and Ethane	1,222	58	1,280	26	1,409	231	467	2,133	441	1,877	916	81	45	3,360	-7	1,206	7,972
For Petrochemical Feedstock Use	436	0	436	0	166	0	23	189	21	1,382	380	4	0	1,787	-12	165	2,565
For Other Uses	786	58	844	26	1,243	231	444	1,944	420	495	536	77	45	1,573	5	1,041	5,407
Ethane	0	0	0	0	0	0	0	0	0	178	3	0	0	181	0	15	222
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	178	3	0	0	181	0	0	181
For Other Uses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	41
Propane	1,092	58	1,150	26	1,405	231	591	2,253	392	1,649	1,044	64	36	3,185	119	892	7,599
For Petrochemical Feedstock Use	380	0	380	0	166	0	23	189	0	813	266	0	0	1,079	2	94	1,744
For Other Uses	712	58	770	26	1,239	231	568	2,064	392	836	778	64	36	2,106	117	798	5,855
Butane	130	0	130	0	-22	0	-124	-146	28	13	-194	14	3	-136	-100	310	58
For Petrochemical Feedstock Use	56	0	56	0	0	0	0	0	0	391	0	4	0	395	1	71	523
For Other Uses	74	0	74	0	-22	0	-124	-146	28	-378	-194	10	3	-531	-101	239	-465
Butane-Propane Mixtures	0	0	0	0	0	0	0	0	5	37	63	3	6	114	-11	-11	92
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	0	111	0	0	116	0	0	116
For Other Uses	0	0	0	0	0	0	0	0	0	37	-48	3	6	-2	-11	-11	-24
Isobutane for Petro. Feed. Use	0	0	0	0	0	0	0	0	16	0	0	0	0	16	-15	0	1
Finished Motor Gasoline	17,388	1,326	18,714	1,168	31,179	4,226	14,971	51,544	7,846	40,457	29,675	2,120	1,068	81,166	6,295	28,322	186,041
Finished Lead Motor Gasoline	7,620	678	8,298	559	14,613	2,297	9,040	26,509	4,280	16,820	14,791	1,512	653	38,056	4,042	13,081	89,986
Finished Unleaded Motor Gasoline	9,768	648	10,416	609	16,560	1,929	5,924	25,022	3,566	23,637	14,884	608	415	43,110	2,253	15,154	95,955
Gasohol	0	0	0	0	6	0	7	13	0	0	0	0	0	0	0	87	100
Finished Aviation Gasoline	9	0	9	0	75	0	40	115	13	259	107	0	0	379	15	115	633
Naphtha-Type Jet Fuel	743	0	743	0	301	84	657	1,042	734	1,168	492	132	332	2,858	413	1,750	6,806
Kerosene-Type Jet Fuel	1,354	98	1,452	112	3,244	227	960	4,543	617	6,063	7,625	18	24	14,347	571	7,014	27,927
Kerosene	61	35	96	0	473	2	7	482	79	1,209	1,130	2	24	2,444	47	195	3,264
Distillate Fuel Oil	8,419	812	9,231	400	9,141	1,679	6,768	17,988	3,203	16,597	9,841	1,471	826	31,938	2,948	9,018	71,123
Distillate Fuel Oil Less No. 4	8,419	799	9,218	400	9,120	1,679	6,768	17,967	3,198	16,192	10,155	1,418	598	31,561	2,920	8,945	70,611
No. 4 Fuel Oil	0	13	13	0	21	0	0	21	5	405	-314	53	228	377	28	73	512
Residual Fuel Oil	5,184	204	5,388	119	2,357	247	815	3,538	1,007	6,226	5,848	482	173	13,736	312	11,762	34,736
Naphtha < 400 Deg. For Petro. Feed. Use	373	0	373	0	571	0	86	657	389	3,958	152	2	0	4,501	0	144	5,675
Other Oils > 400 Deg. For Petro. Feed. Use	10	54	64	0	1,087	0	0	1,087	125	3,636	3,007	61	0	6,829	0	226	8,206
Special Naphthas	13	17	30	0	196	0	100	296	131	784	53	215	0	1,183	1	181	1,691
Lubricants	323	423	746	0	453	0	366	819	38	1,517	619	145	0	2,319	2	368	4,254
Bright Stock	-1	177	176	0	18	0	-21	-3	0	111	49	0	0	160	0	34	367
Neutral	78	226	304	0	300	0	228	528	0	650	499	80	0	1,229	4	207	2,272
Other Grades	246	20	266	0	135	0	159	294	38	756	71	65	0	930	-2	127	1,615
Wax	16	85	101	0	17	0	30	47	6	135	67	24	0	232	2	64	446
Microcrystalline	1	26	27	0	0	0	24	24	6	12	0	24	0	42	0	0	93
Crystalline-Fully Refined	5	11	16	0	13	0	-2	11	0	55	67	0	0	122	2	41	192
Crystalline-Other	10	48	58	0	4	0	8	12	0	68	0	0	0	68	0	23	61
Petroleum Coke	1,235	44	1,279	25	2,010	315	1,000	3,350	255	2,572	1,718	128	9	4,682	357	3,086	12,754
Marketable	505	0	505	0	1,225	196	611	2,032	65	1,192	1,040	104	0	2,401	205	2,285	7,428
Catalyst	730	44	774	25	785	119	389	1,318	190	1,380	678	24	9	2,281	152	801	5,326
Asphalt	946	114	1,060	89	944	403	515	1,951	278	337	808	659	49	2,131	509	1,395	7,046
Road Oil	0	0	0	0	0	0	1	4	0	0	0	0	0	0	0	3	34
Still Gas	1,557	96	1,653	69	2,209	237	1,246	3,761	321	4,514	2,512	172	51	7,570	515	3,222	16,721
For Petrochemical Feedstock Use	43	0	43	0	0	0	0	0	2	2	455	99	0	556	12	4	617
For Other Uses	1,514	96	1,610	69	2,207	237	1,246	3,759	319	4,059	2,413	172	51	7,014	503	3,218	16,104
Miscellaneous Products	327	22	349	3	-184	21	56	-104	91	951	216	41	-1	1,298	22	254	1,819
Total Output	39,180	3,388	42,568	2,011	55,485	7,672	28,085	93,253	15,574	92,260	64,786	5,753	2,600	180,973	12,005	68,349	337,448
Processing Gain(-) or Loss(+)	-1,975	39	-1,936	-81	-2,549	-449	-955	-4,034	-232	-3,773	-2,134	-49	-7	-6,195	-137	-3,534	-5,536

<sup>1</sup> Represents the arithmetic difference between input and output.  
Notes: Total may not equal sum of components due to independent rounding.

See Explanatory Notes on negative product yield.  
Source: See Explanatory Notes on Data Collection and Estimation

Table 17. Percent Refinery Yield of Petroleum Products by PAD District, 1 March 1982

Commodity	PAD District I			PAD District II				PAD District III			PAD District IV		United States				
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.		New Mexico	Total	Rocky Mt.	Dist. V West Coast
Finished Motor Gasoline <sup>2</sup>	46.0	37.1	45.3	58.4	55.7	55.1	51.6	54.5	45.5	41.7	43.5	30.2	37.1	42.2	51.2	41.8	45.8
Finished Aviation Gasoline <sup>3</sup>	(s)	.0	(s)	.0	.3	.0	.2	.3	.3	.3	.1	.0	.0	.2	.1	.3	.2
Liquefied Refinery Gases & Ethane	3.3	1.7	3.2	1.4	2.9	3.5	1.9	2.6	3.2	2.3	1.6	1.6	1.9	2.1	.1	1.9	2.2
Naphtha-Type Jet Fuel	2.0	.0	1.9	.0	.6	1.3	2.6	1.3	5.3	1.4	.8	2.6	13.7	1.8	3.6	2.8	1.9
Kerosene-Type Jet Fuel	3.7	2.9	3.6	6.1	6.6	3.4	3.8	5.5	4.5	7.4	13.1	.4	1.0	8.9	5.0	11.2	7.8
Kerosene	.2	1.0	.2	.0	1.0	(s)	(s)	.6	.6	1.5	1.9	(s)	1.0	1.5	.4	.3	.9
Distillate Fuel Oil	22.9	24.3	23.0	21.8	18.5	25.2	26.9	21.7	23.2	20.2	16.9	28.6	34.1	19.7	25.8	14.4	19.8
Residual Fuel Oil	14.1	6.1	13.5	6.5	4.8	3.7	3.2	4.3	7.3	7.6	10.0	9.4	7.1	8.5	2.7	18.7	9.7
Naphtha < 400 Deg. F. Petro. Feed. Use	1.0	.0	.9	.0	1.2	.0	.3	.8	2.8	4.8	.3	(s)	.0	2.8	.0	.2	1.6
Other Oils > 400 Deg. F. Petro. Feed. Use	(s)	1.6	.2	.0	2.2	.0	.0	1.3	.9	4.4	5.2	1.2	.0	4.2	.0	.4	2.3
Special Naphthas	(s)	.5	.1	.0	.4	.0	.4	.4	.9	1.0	.1	4.2	.0	.7	(s)	.3	.5
Lubricants	.9	12.7	1.9	.0	.9	.0	1.5	1.0	.3	1.8	1.1	2.8	.0	1.4	(s)	.6	1.2
Wax	(s)	2.5	.3	.0	(s)	.0	.1	.1	(s)	.2	.1	.5	.0	.1	(s)	.1	.1
Petroleum Coke	3.4	1.3	3.2	1.4	4.1	4.7	4.0	4.0	1.8	3.1	3.0	2.5	.4	2.9	3.1	4.9	3.6
Asphalt	2.6	3.4	2.6	4.9	1.9	6.0	2.0	2.4	2.0	.4	1.4	12.8	2.0	1.3	4.5	2.2	2.0
Road Oil	.0	.0	.0	.0	(s)	.0	(s)	(s)	.0	.0	.0	.0	.0	.0	(s)	(s)	(s)
Still Gas for Petro. Feed. Use	.1	.0	.1	.0	(s)	.0	.0	(s)	(s)	.6	.2	.0	.0	.3	.1	(s)	.2
Still Gas for Other Uses	4.1	2.9	4.0	3.8	4.5	3.6	5.0	4.5	2.3	4.9	4.1	3.3	2.1	4.3	4.4	5.1	4.5
Miscellaneous Products	.9	.7	.9	.2	-.4	.3	.2	-.1	.7	1.2	.4	.8	(s)	.8	.2	.4	.5
Processing Gain(-) or Loss(+) <sup>4</sup>	-5.4	1.2	-4.8	-4.4	-5.2	-6.7	-3.8	-4.9	-1.7	-4.6	-3.7	-1.0	-.3	-3.8	-1.2	-5.6	-4.4

<sup>1</sup> Based on crude oil input and net reruns of unfinished oils.

<sup>2</sup> Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

<sup>3</sup> Based on finished aviation gasoline output plus net output of aviation gasoline blending components.

<sup>4</sup> Represents the difference between Input and Production.

(s) Less than 0.05 percent.

Note: Total may not equal sum of components due to independent rounding.

See Explanatory Notes on negative product yields.

Source: See Explanatory Notes on Data Collection and Estimation.

**Table 18. Refinery Receipts of Crude Oil by PAD District, March 1982**  
(Thousands of Barrels)

Method	PAD District I			PAD District II						PAD District III						PAD Dist. IV		United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill.,	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	PAD Rocky Mt.	Dist. V West Coast		
Pipeline																		
Domestic .....	0	1,937	1,937	1,256	37,439	3,484	22,368	64,547	12,244	50,398	31,915	3,250	1,821	99,628	10,034	27,307	203,453	
Foreign .....	0	775	775	270	9,308	3,561	1,457	14,596	1,123	8,330	918	459	0	10,830	827	430	27,458	
Tanker																		
Domestic .....	4,112	0	4,112	0	0	0	0	0	0	5,309	3,302	0	0	8,611	0	26,164	38,887	
Foreign .....	25,773	0	25,773	0	0	0	0	0	0	9,968	15,125	0	0	25,093	0	5,689	56,555	
Barge																		
Domestic .....	0	45	45	0	1,019	0	0	1,019	0	4,483	5,428	129	0	10,040	0	257	11,371	
Foreign .....	2,809	0	2,809	0	324	0	0	324	0	80	323	9	0	412	0	0	3,545	
Tank Cars																		
Domestic .....	82	355	437	0	0	0	0	0	0	0	0	24	0	24	0	0	461	
Foreign .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Trucks																		
Domestic .....	0	318	318	125	257	11	995	1,388	936	227	576	917	537	3,193	956	1,330	7,185	
Foreign .....	0	0	0	0	0	0	0	0	168	0	0	0	0	168	0	0	168	
Total																		
Domestic .....	4,194	2,655	6,849	1,381	38,715	3,495	23,363	66,954	13,180	60,417	41,221	4,320	2,358	121,496	10,990	55,068	261,357	
Foreign .....	28,582	775	29,357	270	9,632	3,561	1,457	14,920	1,291	18,378	16,366	468	0	36,503	827	6,119	87,726	

Table 20. Imports of Crude Oil and Petroleum Products by PAD District, March 1982  
(Thousands of Barrels)

Commodity	Petroleum Administration for Defense Districts					Total
	I	II	III	IV	V	
<b>Crude Oil (including lease condensate) <sup>1 2</sup></b>	<b>28,160</b>	<b>13,979</b>	<b>40,565</b>	<b>628</b>	<b>5,196</b>	<b>88,528</b>
<b>Natural Gas Liquids</b>	<b>416</b>	<b>5,168</b>	<b>425</b>	<b>594</b>	<b>497</b>	<b>7,099</b>
Natural Gasoline and Isopentane	(s)	0	0	0	0	(s)
Plant Condensate	0	0	0	143	43	186
Liquefied Petroleum Gases and Ethane	415	5,168	425	451	454	6,913
Ethane	0	1,812	0	0	0	1,812
Propane	234	1,195	0	344	100	1,873
Butane	182	650	0	107	353	1,292
Butane-Propane Mixtures	0	0	425	0	0	425
Ethane-Propane Mixtures	0	1,512	0	0	0	1,512
<b>Other Liquids <sup>1</sup></b>	<b>1,565</b>	<b>523</b>	<b>1,855</b>	<b>53</b>	<b>209</b>	<b>4,206</b>
Unfinished Oils <sup>1</sup>	1,562	51	1,802	0	209	3,614
Motor Gasoline Blending Components	13	472	54	53	0	592
<b>Finished Petroleum Products</b>	<b>32,183</b>	<b>722</b>	<b>3,270</b>	<b>1</b>	<b>2,290</b>	<b>38,466</b>
Finished Motor Gasoline	4,636	2	(s)	0	1,042	5,680
Finished Leaded Motor Gasoline	2,703	0	(s)	0	681	3,385
Finished Unleaded Motor Gasoline	1,933	2	0	0	361	2,296
Finished Aviation Gasoline	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	0	0	0
Kerosene-Type Jet Fuel	1,200	0	0	0	0	1,200
Bonded Aircraft Fuel	0	0	0	0	0	0
Other	1,200	0	0	0	0	1,200
Kerosene	49	0	0	0	0	49
Distillate Fuel Oil	1,137	0	197	(s)	160	1,495
Bonded ships bunkers	0	0	0	0	0	0
For military offshore use	0	0	0	0	0	0
No. 2 fuel oil	1,137	0	197	(s)	157	1,491
No. 4 fuel oil	0	0	0	0	3	3
Residual Fuel Oil	24,060	614	2,816	0	708	28,198
Bonded ships bunkers	0	0	0	0	0	0
For military offshore use	0	0	0	0	0	0
Other	24,060	614	2,816	0	708	28,198
Naphtha < 400 Deg. for Petro. Feed. Use	36	0	34	0	4	74
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	950	87	222	0	376	1,635
Lubricants	109	5	(s)	(s)	(s)	114
Wax	2	5	1	0	1	8
Asphalt	1	0	0	0	0	1
Miscellaneous Products	2	9	1	0	(s)	13
<b>Total Imports</b>	<b>62,323</b>	<b>20,392</b>	<b>45,115</b>	<b>1,276</b>	<b>8,192</b>	<b>138,299</b>

<sup>1</sup> Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

<sup>2</sup> Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, March 1982  
(Thousands of Barrels)

Source	Crude Oil 1	LPG and Ethane	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphtinas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
All PAD Districts														
<b>Arab OPEC</b>														
Algeria	468	0	0	0	0	0	0	0	2,133	222	0	2,354	2,822	91
Libya	1,162	0	0	0	0	0	0	0	0	0	0	0	1,162	37
Qatar	658	0	0	0	0	0	0	0	0	0	0	0	658	21
Saudi Arabia	16,961	0	0	0	0	0	0	0	0	251	0	251	17,212	555
United Arab Emirates	4,491	0	0	0	0	0	0	0	0	328	0	328	4,820	155
Subtotal Arab OPEC	23,740	0	0	0	0	0	0	0	2,133	801	0	2,933	26,673	860
<b>Other OPEC</b>														
Ecuador	1,339	0	0	0	0	0	0	0	219	0	0	219	1,559	50
Gabon	616	0	0	0	0	0	0	0	0	0	0	0	616	20
Indonesia	5,343	0	0	0	246	0	0	69	543	0	0	858	6,201	200
Nigeria	15,590	0	0	0	0	0	0	0	0	0	0	0	15,590	503
Venezuela	3,488	124	209	0	255	0	0	0	8,290	0	0	8,878	12,366	399
Subtotal Other OPEC	26,376	124	209	0	501	0	0	69	9,052	0	0	9,956	36,332	1,172
<b>Other</b>														
Angola	615	0	0	0	0	0	0	0	0	0	0	0	615	20
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	(s)
Bahamas	0	0	662	0	0	0	0	150	507	0	0	1,319	1,319	43
Brazil	350	0	0	0	0	0	0	0	413	15	0	428	778	25
Brunei	0	0	0	0	76	0	0	4	77	0	0	157	157	5
Canada	5,211	6,286	53	579	2	(s)	(s)	17	872	249	219	8,276	13,488	435
Congo	0	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)
Egypt	1,412	0	0	0	0	0	0	0	0	0	0	0	1,412	46
France	0	0	0	0	0	0	0	0	0	0	(s)	0	0	(s)
Ghana	0	0	0	0	0	0	0	0	135	0	0	135	135	4
Malaysia	1,415	0	0	0	0	0	0	0	0	0	0	0	1,415	46
Mexico	14,725	425	0	0	(s)	0	0	101	335	0	2	864	15,588	503
Netherlands	1	(s)	0	0	884	0	0	0	248	0	0	1,133	1,134	37
Netherlands Antilles	0	0	427	0	0	424	0	0	5,010	0	0	5,861	5,861	189
Norway	2,493	0	0	0	0	0	0	0	0	168	0	0	2,493	80
People's Republic of China	0	0	0	0	487	0	0	0	0	0	0	655	655	21
Peru	362	0	0	0	0	0	0	0	480	0	0	480	842	27
Puerto Rico	0	0	436	0	1,240	0	0	105	0	0	156	1,937	1,937	62
Romania	0	0	0	13	0	0	0	0	0	0	0	0	0	(s)
Spain	0	0	0	0	195	0	0	0	0	0	(s)	0	0	(s)
Syria	0	0	0	0	0	0	0	0	855	0	0	855	855	6
Trinidad and Tobago	2,804	0	0	0	0	0	0	0	0	0	0	0	0	118
Tunisia	(s)	0	925	0	0	0	0	0	0	0	0	0	0	(s)
United Kingdom	8,129	(s)	0	0	0	0	0	0	0	0	18	944	9,072	293
Virgin Islands	0	0	438	0	1,473	776	49	1,019	5,701	70	0	9,526	9,526	307
Other Western Hemisphere	0	78	67	0	0	0	0	0	1,089	102	0	1,335	1,335	43
Other Eastern Hemisphere	895	(s)	397	0	823	0	0	29	1,291	230	(s)	2,769	3,664	118
Subtotal Other	38,412	6,789	3,404	592	5,179	1,200	49	1,425	17,012	834	396	36,882	75,294	2,429
<b>Total Imports</b>	<b>88,528</b>	<b>6,913</b>	<b>3,614</b>	<b>592</b>	<b>5,680</b>	<b>1,200</b>	<b>49</b>	<b>1,495</b>	<b>28,198</b>	<b>1,635</b>	<b>396</b>	<b>49,771</b>	<b>138,299</b>	<b>4,461</b>

See footnotes at end of table.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, March 1982  
(continued)

Source	Crude Oil 1	LPG and Ethane	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District I														
<b>Arab OPEC</b>														
Algeria .....	467	0	0	0	0	0	0	0	2,133	222	0	2,354	2,821	91
Libya .....	644	0	0	0	0	0	0	0	0	0	0	0	644	21
Qatar .....	22	0	0	0	0	0	0	0	0	0	0	0	22	1
Saudi Arabia .....	4,811	0	0	0	0	0	0	0	0	251	0	251	5,061	163
United Arab Emirates .....	0	0	0	0	0	0	0	0	0	328	0	328	328	11
Subtotal Arab OPEC .....	5,943	0	0	0	0	0	0	0	2,133	801	0	2,933	8,876	286
<b>Other OPEC</b>														
Ecuador .....	0	0	0	0	0	0	0	0	219	0	0	219	219	7
Gabon .....	616	0	0	0	0	0	0	0	0	0	0	0	616	20
Indonesia .....	1,918	0	0	0	0	0	0	0	0	0	0	0	1,918	62
Nigeria .....	9,623	0	0	0	0	0	0	0	0	0	0	0	9,623	310
Venezuela .....	1,685	124	0	0	255	0	0	0	6,879	0	0	7,258	8,944	289
Subtotal Other OPEC .....	13,842	124	0	0	255	0	0	0	7,098	0	0	7,478	21,319	688
<b>Other</b>														
Angola .....	446	0	0	0	0	0	0	0	0	0	0	0	446	14
Australia .....	0	0	0	0	0	0	0	0	0	0	0	0	0	(s)
Bahamas .....	0	0	421	0	0	0	0	0	507	0	(s)	0	927	30
Brazil .....	350	0	0	0	0	0	0	0	413	0	0	413	763	25
Canada .....	0	213	1	0	0	(s)	0	13	236	149	9	623	623	20
Egypt .....	260	0	0	0	0	0	0	0	0	0	0	0	260	8
France .....	0	0	0	0	0	0	0	0	0	0	(s)	0	0	(s)
Ghana .....	0	0	0	0	0	0	0	0	133	0	0	133	133	4
Mexico .....	2,908	0	0	0	0	0	0	0	0	0	0	0	2,908	94
Netherlands .....	1	0	0	0	884	0	0	0	248	0	0	1,133	1,134	37
Netherlands Antilles .....	0	0	426	0	0	424	0	0	4,781	0	0	5,632	5,632	182
Norway .....	1,002	0	0	0	0	0	0	0	0	0	0	0	1,002	32
Peru .....	362	0	0	0	0	0	0	0	242	0	0	242	604	19
Puerto Rico .....	0	0	436	0	1,013	0	0	105	0	0	122	1,677	1,677	54
Romania .....	0	0	0	13	0	0	0	0	0	0	0	13	13	(s)
Spain .....	0	0	0	0	0	0	0	0	0	0	(s)	0	0	(s)
Syria .....	0	0	0	0	195	0	0	0	0	0	0	195	195	6
Trinidad and Tobago .....	503	0	0	0	0	0	0	0	256	0	0	256	758	24
United Kingdom .....	2,544	(s)	1	0	0	0	0	0	0	0	18	20	2,564	83
Virgin Islands .....	0	0	266	0	1,473	776	49	1,019	5,701	0	0	9,284	9,284	299
Other Western Hemisphere .....	0	78	0	0	0	0	0	0	1,089	0	0	1,166	1,166	38
Other Eastern Hemisphere .....	0	(s)	0	0	815	0	0	0	1,224	(s)	(s)	2,039	2,039	66
Subtotal Other .....	8,375	291	1,552	13	4,381	1,200	49	1,137	14,829	149	151	23,752	32,128	1,036
<b>Total Imports .....</b>	<b>28,160</b>	<b>415</b>	<b>1,552</b>	<b>13</b>	<b>4,636</b>	<b>1,200</b>	<b>49</b>	<b>1,137</b>	<b>24,060</b>	<b>950</b>	<b>151</b>	<b>34,163</b>	<b>62,323</b>	<b>2,010</b>

See footnotes at end of table.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, March 1982  
(Thousands of Barrels)

Source	Crude Oil 1	LPG and Ethane	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Napthmas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
PAD District II														
<b>Arab OPEC</b>														
Qatar	636	0	0	0	0	0	0	0	0	0	0	0	636	21
Saudi Arabia	2,756	0	0	0	0	0	0	0	0	0	0	0	2,756	89
United Arab Emirates	484	0	0	0	0	0	0	0	0	0	0	0	484	16
Subtotal Arab OPEC	3,875	0	0	0	0	0	0	0	0	0	0	0	3,875	125
<b>Other OPEC</b>														
Nigeria	1,031	0	0	0	0	0	0	0	0	0	0	0	1,031	33
Subtotal Other OPEC	1,031	0	0	0	0	0	0	0	0	0	0	0	1,031	33
<b>Other</b>														
Canada	4,153	5,168	51	472	2	0	0	0	614	87	18	6,413	10,567	341
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	1,731	0	0	0	0	0	0	0	0	0	0	0	1,731	56
Norway	500	0	0	0	0	0	0	0	0	0	0	0	500	16
United Kingdom	2,239	0	0	0	0	0	0	0	0	0	(s)	(s)	2,239	72
Other Eastern Hemisphere	449	0	0	0	0	0	0	0	0	0	0	0	449	14
Subtotal Other	9,072	5,168	51	472	2	0	0	0	614	87	18	6,413	15,486	500
<b>Total Imports</b>	13,979	5,168	51	472	2	0	0	0	614	87	18	6,413	20,392	658
PAD District III														
<b>Arab OPEC</b>														
Algeria	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
Libya	518	0	0	0	0	0	0	0	0	0	0	0	518	17
Saudi Arabia	9,294	0	0	0	0	0	0	0	0	0	0	0	9,294	300
United Arab Emirates	3,658	0	0	0	0	0	0	0	0	0	0	0	3,658	118
Subtotal Arab OPEC	13,471	0	0	0	0	0	0	0	0	0	0	0	13,471	435
<b>Other OPEC</b>														
Ecuador	1,070	0	0	0	0	0	0	0	0	0	0	0	1,070	35
Nigeria	4,936	0	0	0	0	0	0	0	0	0	0	0	4,936	159
Venezuela	1,803	0	0	0	0	0	0	0	1,411	0	0	1,411	3,213	104
Subtotal Other OPEC	7,808	0	0	0	0	0	0	0	1,411	0	0	1,411	9,219	297
<b>Other</b>														
Angola	168	0	0	0	0	0	0	0	0	0	0	0	168	5
Bahamas	0	0	242	0	0	0	0	150	0	0	0	392	392	13
Brazil	0	0	0	0	0	0	0	0	0	15	0	15	15	(s)
Canada	0	0	0	54	0	0	0	0	0	0	0	54	54	2
Congo	0	0	0	0	0	0	0	0	(s)	0	0	(s)	(s)	(s)
Egypt	1,153	0	0	0	0	0	0	0	0	0	0	0	1,153	37
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Ghana	0	0	0	0	0	0	0	0	2	0	0	2	2	(s)
Malaysia	794	0	0	0	0	0	0	0	0	0	0	0	794	26
Mexico	10,086	425	(s)	0	(s)	0	0	47	335	0	2	809	10,895	351
Netherlands Antilles	0	0	0	0	0	0	0	0	229	0	0	229	229	7
Norway	991	0	0	0	0	0	0	0	0	0	0	0	991	32
Peru	0	0	0	0	0	0	0	0	239	0	0	239	239	8

See footnotes at end of table

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, March 1982  
(Thousands of Barrels)  
(continued)

Source	Crude Oil 1	LPG and Ethane	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
PAD District III														
<b>Other</b>														
Puerto Rico .....	0	0	0	0	0	0	0	0	0	0	34	34	34	1
Trinidad and Tobago .....	2,301	0	0	0	0	0	0	0	599	0	0	599	2,900	94
Tunisia .....	(s)	0	0	0	0	0	0	0	0	0	0	0	(s)	(s)
United Kingdom .....	3,346	0	924	0	0	0	0	0	0	0	0	924	4,270	138
Virgin Islands .....	0	0	173	0	0	0	0	0	0	70	0	242	242	8
Other Western Hemisphere .....	0	0	67	0	0	0	0	0	0	102	0	169	169	5
Other Eastern Hemisphere .....	446	0	397	0	0	0	0	0	1	35	0	432	878	28
Subtotal Other .....	19,285	425	1,802	54	(s)	0	0	197	1,405	222	36	4,140	23,425	756
<b>Total Imports</b> .....	40,565	425	1,802	54	(s)	0	0	197	2,816	222	36	5,550	46,115	1,488
PAD District IV														
<b>Other</b>														
Canada .....	628	451	0	53	0	0	0	(s)	0	0	143	648	1,276	41
Subtotal Other .....	628	451	0	53	0	0	0	(s)	0	0	143	648	1,276	41
<b>Total Imports</b> .....	628	451	0	53	0	0	0	(s)	0	0	143	648	1,276	41
PAD District V														
<b>Arab OPEC</b>														
Saudi Arabia .....	101	0	0	0	0	0	0	0	0	0	0	0	101	3
United Arab Emirates .....	350	0	0	0	0	0	0	0	0	0	0	0	350	11
Subtotal Arab OPEC .....	450	0	0	0	0	0	0	0	0	0	0	0	450	15
<b>Other OPEC</b>														
Ecuador .....	270	0	0	0	0	0	0	0	0	0	0	0	270	9
Indonesia .....	3,425	0	0	0	246	0	0	69	543	0	0	858	4,283	138
Venezuela .....	0	0	209	0	0	0	0	0	0	0	0	209	209	7
Subtotal Other OPEC .....	3,695	0	209	0	246	0	0	69	543	0	0	1,067	4,762	154
<b>Other</b>														
Brunei .....	0	0	0	0	76	0	0	4	77	0	0	157	157	5
Canada .....	430	454	0	0	0	0	0	3	22	12	48	539	969	31
Malaysia .....	621	0	0	0	0	0	0	0	0	0	0	0	621	20
Mexico .....	0	(s)	0	0	(s)	0	0	54	0	0	1	55	55	2
Netherlands .....	0	0	0	0	0	0	0	0	0	0	0	0	(s)	(s)
People's Republic of China .....	0	0	0	0	487	0	0	0	0	168	0	655	655	21
Puerto Rico .....	0	0	0	0	226	0	0	0	0	0	0	226	226	7
Other Eastern Hemisphere .....	0	0	0	0	7	0	0	23	66	195	(s)	297	297	10
Subtotal Other .....	1,051	454	0	0	796	0	0	91	164	376	48	1,929	2,980	96
<b>Total Imports</b> .....	5,196	454	209	0	1,042	0	0	160	708	376	48	2,996	8,192	264

1 Includes crude oil imported for storage in the Strategic Petroleum Reserve.

2 Includes aviation gasoline, waxes, asphalt, lubricants, natural gasoline, isopentane, plant condensate, naphthas less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 22. Exports of Crude Oil and Petroleum Products by PAD District, March 1982  
(Thousands of Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) <sup>1</sup>	0	1,963	0	0	7,987	9,950
Liquefied Petroleum Gases and Ethane	70	825	1,261	0	152	2,308
Ethane	(s)	0	(s)	0	0	(s)
Propane	29	330	714	0	61	1,135
Butane	41	495	547	0	91	1,174
Butane-Propane Mixtures	0	0	0	0	0	0
Finished Motor Gasoline	1	25	1,086	0	254	1,367
Naphtha-Type Jet Fuel	(s)	0	0	0	0	(s)
Kerosene-Type Jet Fuel	0	0	0	0	80	80
Kerosene	1	(s)	0	0	(s)	1
Distillate Fuel Oil	1	(s)	1,394	0	1,212	2,607
Residual Fuel Oil	225	0	4,110	0	1,778	6,113
Naphtha < 400 Deg. for Petrochem. Feedstock	55	7	90	1	13	167
Other Oils > 400 Deg. for Petrochem. Feedstock	(s)	42	261	0	1	304
Special Naphthas	2	1	253	0	(s)	256
Lubricants	248	16	375	1	52	692
Wax	5	(s)	26	0	5	36
Petroleum Coke	17	49	1,188	0	2,157	3,411
Asphalt	5	(s)	3	(s)	3	12
Miscellaneous Products	15	1	20	(s)	4	40
Total Product Exports	645	968	10,066	3	5,711	17,393
Total Exports	645	2,931	10,066	3	13,698	27,343

<sup>1</sup> Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange on a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 23. Exports of Crude Oil and Petroleum Products by Destination, March 1982  
(Thousands of Barrels)

Destination	Crude Oil 1	LPG and Ethane	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Wax	Petroleum Coke	Asphalt	Other	Total	Total (Daily Average)
Argentina	0	0	0	0	0	0	(s)	13	1	51	(s)	(s)	66	2
Australia	0	1	(s)	0	0	186	11	6	0	247	(s)	3	454	15
Bahamas	0	2	0	0	(s)	0	0	1	0	0	0	(s)	4	(s)
Bahrain	0	2	0	0	0	0	0	(s)	0	60	0	1	64	2
Belgium & Luxembourg	0	1	(s)	0	0	0	0	60	(s)	9	(s)	0	70	2
Brazil	0	6	0	0	0	460	7	10	(s)	0	0	1	485	16
Cameroon	0	(s)	0	0	0	0	0	0	0	30	0	0	30	1
Canada	1,963	829	25	40	1	81	2	64	4	120	1	62	3,190	103
Chile	0	(s)	0	0	0	0	(s)	0	(s)	0	0	(s)	3	(s)
China (Taiwan)	0	4	0	0	0	0	(s)	16	(s)	1	(s)	1	23	1
Colombia	0	0	0	0	0	0	0	3	(s)	(s)	0	1	5	(s)
Costa Rica	0	1	0	0	0	0	0	2	(s)	0	0	(s)	4	(s)
Denmark	0	1	0	0	0	0	(s)	(s)	(s)	125	0	(s)	126	4
Dominican Republic	0	0	0	0	0	0	(s)	12	(s)	12	0	(s)	13	(s)
Ecuador	0	0	121	0	131	0	(s)	(s)	(s)	0	0	3	256	8
Egypt	0	0	0	0	0	0	0	4	0	0	0	(s)	4	(s)
El Salvador	0	0	0	0	0	0	0	2	0	0	0	(s)	2	(s)
Finland	0	0	0	0	0	0	0	(s)	(s)	0	0	1	1	(s)
France	0	335	0	0	0	0	(s)	1	1	598	0	131	1,066	34
French Pacific Isl	0	0	15	0	35	630	0	1	0	0	0	(s)	681	22
Ghana	0	0	0	0	0	0	0	(s)	0	24	0	0	24	1
Greece	0	0	0	0	0	0	0	1	0	0	0	0	1	(s)
Guatemala	0	(s)	0	0	0	0	0	3	(s)	0	0	(s)	3	(s)
Guinea	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Honduras	0	0	0	0	0	0	0	1	(s)	0	0	1	2	(s)
Hong Kong	0	2	0	0	(s)	0	0	1	(s)	0	(s)	0	4	(s)
India	0	0	0	0	0	0	0	1	(s)	0	0	7	7	(s)
Indonesia	0	0	0	0	0	0	0	18	0	0	(s)	0	18	1
Iran	0	0	0	0	0	0	0	1	0	0	0	0	1	(s)
Israel	0	1	0	0	0	0	(s)	1	(s)	0	(s)	6	8	(s)
Italy	0	80	0	0	0	151	0	7	1	390	0	7	635	20
Ivory Coast	0	0	0	0	0	0	0	5	0	0	0	0	5	(s)
Jamaica	0	0	0	0	0	0	(s)	28	(s)	0	0	(s)	28	1
Japan	0	10	0	0	487	0	9	42	2	679	(s)	32	1,262	41
Jordan	0	0	0	0	0	0	0	2	0	0	0	0	2	(s)
Korea, Republic of	0	0	0	0	452	704	(s)	4	(s)	46	3	1	1,209	39
Kuwait	0	1	0	0	0	0	(s)	1	0	0	0	(s)	2	(s)
Lebanon	0	(s)	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Liberia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malaysia	0	0	0	0	0	0	0	0	0	0	(s)	0	1	(s)
Mexico	0	780	985	40	1,165	(s)	1	87	4	56	2	7	3,127	101
Netherlands	0	193	0	0	0	2,281	(s)	4	(s)	548	0	34	3,061	99
Netherlands Antilles	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
New Zealand	0	0	(s)	0	0	0	(s)	(s)	(s)	0	(s)	2	4	(s)
Nicaragua	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Nigeria	0	0	0	0	174	0	0	38	0	0	0	1	214	7
Norway	0	(s)	0	0	0	0	0	(s)	0	30	0	(s)	30	1
Pacific Trust Terr.	0	0	0	0	0	0	0	(s)	0	0	(s)	(s)	(s)	(s)
Panama	0	(s)	0	0	0	0	0	52	(s)	0	(s)	(s)	383	12
Peru	0	(s)	0	0	152	177	0	13	0	0	(s)	0	14	(s)
Philippines	0	0	0	0	0	0	(s)	3	(s)	1	0	1	5	(s)

See footnotes at end of table.

Table 23. Exports of Crude Oil and Petroleum Products by Destination, March 1982  
(Thousands of Barrels)

Destination	Crude Oil <sup>1</sup>	LPG and Ethane	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Wax	Petro-leum Coke	Asphalt	Other	Total	Total (Daily Average)
Puerto Rico	2,182	21	219	0	6	327	224	14	1	58	(s)	8	3,060	99
Rep. of South Africa	0	(s)	0	0	0	0	0	39	2	16	(s)	14	72	2
Saudi Arabia	0	7	0	0	(s)	0	0	20	0	(s)	2	3	32	1
Singapore	0	(s)	0	0	0	0	0	2	(s)	0	(s)	4	6	(s)
Spain	0	0	0	0	0	0	0	2	(s)	183	0	1	185	6
Surinam	0	(s)	0	0	1	0	0	0	0	16	0	(s)	16	1
Sweden	0	0	0	0	0	0	0	1	(s)	0	0	2	3	(s)
Switzerland	0	0	0	0	0	(s)	0	(s)	(s)	0	0	(s)	1	(s)
Thailand	0	(s)	0	0	0	0	0	(s)	0	0	0	(s)	1	(s)
Trinidad and Tobago	0	0	0	0	0	0	0	7	0	(s)	0	0	7	(s)
Turkey	0	0	0	0	0	328	(s)	(s)	0	0	0	0	328	11
United Arab Emirates	0	0	0	0	0	0	(s)	(s)	0	58	0	(s)	58	2
United Kingdom	0	1	0	0	1	605	0	21	(s)	(s)	(s)	11	640	21
U.S.R.	0	0	0	0	0	0	0	58	0	0	0	0	58	2
Uruguay	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Venezuela	0	21	0	0	0	0	(s)	6	(s)	6	(s)	147	181	6
Virgin Islands	5,256	0	0	0	0	0	0	0	0	0	0	(s)	5,256	170
West Germany	0	0	0	0	(s)	0	0	1	18	47	(s)	11	77	2
Yugoslavia	0	5	0	0	0	0	(s)	(s)	0	0	0	(s)	5	(s)
Other	549	2	0	0	(s)	0	(s)	20	1	0	(s)	2	574	19
Total	9,950	2,308	1,367	80	2,607	5,931	256	692	36	3,411	12	512	27,161	876

<sup>1</sup> Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange, on a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

(s) Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, March 31, 1982  
(Thousands of Barrels)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. IV West Coast
Crude Oil (incl. lease condensate) <sup>1</sup>																	
Refinery .....	--	--	15,540	--	--	--	--	16,705	--	--	--	--	--	50,121	2,734	23,252	108,352
Tank Farms and Pipelines .....	--	--	3,127	--	--	--	--	65,082	--	--	--	--	--	93,513	11,861	28,081	201,664
Leases .....	--	--	65	--	--	--	--	1,576	--	--	--	--	--	17,762	1,485	1,764	22,652
Strategic Petroleum Reserve <sup>2</sup> .....	--	--	0	--	--	--	--	0	--	--	--	--	--	248,537	0	0	248,537
Alaskan In-Transit .....	--	--	0	--	--	--	--	0	--	--	--	--	--	0	0	33,021	33,021
Total .....	--	--	18,732	--	--	--	--	83,363	--	--	--	--	--	409,933	16,080	86,118	614,226
Petroleum Products																	
Refinery .....	40,835	4,407	45,242	1,035	45,239	8,089	24,613	78,976	12,371	76,375	47,393	5,284	1,990	143,413	17,623	68,612	353,866
Bulk Terminal .....	102,839	6,703	109,542	4,312	40,109	10,659	13,837	68,917	5,281	33,680	6,883	4,088	486	50,418	2,841	20,531	252,249
Pipeline .....	24,236	1,470	25,706	1,590	12,300	3,852	16,393	34,135	8,233	10,146	6,792	14,282	1,322	40,775	2,863	3,996	107,475
Natural Gas Processing Plant .....	348	267	615	0	1,913	141	19,203	21,258	5,747	29,054	10,554	3,798	1,305	50,458	313	443	73,086
Total .....	168,258	12,847	181,105	6,937	99,561	22,741	74,046	203,286	31,632	149,255	71,622	27,452	5,103	285,064	23,640	93,582	786,676
Natural Gasoline and Isopentane																	
Refinery .....	3	0	3	0	27	106	162	295	104	756	209	0	41	1,110	10	168	1,586
Pipeline .....	0	0	0	0	52	1	284	337	573	45	0	64	44	726	154	5	1,222
Natural Gas Processing Plant .....	3	14	17	0	32	14	1,285	1,332	489	6,122	517	26	82	7,236	42	14	8,641
Total .....	6	14	20	0	111	121	1,731	1,964	1,166	6,923	726	90	167	9,072	206	187	11,449
Unfractionated Stream																	
Pipeline .....	0	0	0	0	78	0	19	97	0	28	28	0	0	56	0	0	153
Natural Gas Processing Plant .....	0	0	0	0	102	2	1,646	1,750	272	2,105	227	2	242	2,847	36	2	4,635
Total .....	0	0	0	0	180	2	1,665	1,847	272	2,133	255	2	242	2,903	36	2	4,788
Plant Condensate																	
Refinery .....	0	0	0	0	6	0	0	6	8	160	0	93	0	261	0	0	267
Pipeline .....	0	0	0	0	0	0	0	0	822	273	49	4	17	1,165	0	0	1,165
Natural Gas Processing Plant .....	0	0	0	0	2	0	5	7	45	21	14	10	1	91	2	0	100
Total .....	0	0	0	0	8	0	5	13	875	454	63	107	18	1,517	2	0	1,532
Ethane																	
Refinery .....	0	0	0	0	8	0	0	8	0	573	0	0	0	573	0	0	581
Bulk Terminal .....	0	0	0	0	78	0	20	98	0	1,188	0	0	0	1,188	0	0	1,286
Pipeline .....	0	0	0	0	28	919	144	1,091	213	77	141	0	3	434	0	0	1,525
Natural Gas Processing Plant .....	0	0	0	0	24	0	546	571	181	1,083	444	1	0	1,709	(s)	0	2,280
Total .....	0	0	0	0	138	919	710	1,768	394	2,921	585	1	3	3,904	(s)	0	5,672
Propane for Petrochemical Feedstock Use																	
Refinery .....	44	0	44	0	62	0	0	62	0	7	192	0	0	199	1	0	306
Total .....	44	0	44	0	62	0	0	62	0	7	192	0	0	199	1	0	306
Propane for Other Uses																	
Refinery .....	373	3	376	6	684	31	252	973	208	799	757	3	7	1,774	66	226	3,415
Bulk Terminal .....	176	0	176	0	764	97	452	1,313	201	13,719	0	42	0	13,962	38	0	15,489
Pipeline .....	877	329	1,206	32	1,579	294	1,731	3,636	574	329	250	614	158	1,925	121	0	6,888
Natural Gas Processing Plant .....	279	250	529	0	1,649	113	12,352	14,114	3,154	6,395	5,780	3,514	377	19,220	183	189	34,235
Total .....	1,705	582	2,287	38	4,676	535	14,787	20,036	4,137	21,242	6,787	4,173	542	36,881	408	415	60,027

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, March 31, 1982  
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV			United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas		La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.		PAD	
									Inland	Gulf Coast							Dist. V	West Coast
<b>Butane for Petro. Feed. Use</b>																		
Refinery	0	0	0	0	0	8	1	9	0	13	0	2	0	15	2	2	28	
Total	0	0	0	0	0	8	1	9	0	13	0	2	0	15	2	2	28	
<b>Butane for Other Uses</b>																		
Refinery	68	3	71	74	231	37	236	578	120	424	839	2	2	1,387	118	551	2,705	
Bulk Terminal	9	0	9	0	274	0	179	453	119	2,882	0	0	0	3,001	0	0	3,463	
Pipeline	34	78	112	29	886	30	401	1,346	1,154	17	5	18	70	1,264	61	0	2,783	
Natural Gas Processing Plant	49	1	50	0	55	10	901	966	652	3,829	2,443	160	103	7,188	41	83	8,328	
Total	160	82	242	103	1,446	77	1,717	3,343	2,045	7,152	3,287	180	175	12,840	220	634	17,279	
<b>Butane-Propane Mixtures for Petro. Feed. Use</b>																		
Refinery	0	0	0	0	0	0	0	0	1	0	1	0	0	2	0	0	2	
Total	0	0	0	0	0	0	0	0	1	0	1	0	0	2	0	0	2	
<b>Butane-Propane Mixtures for Other Uses</b>																		
Refinery	0	0	0	0	0	0	0	0	0	4	17	1	5	27	2	120	149	
Bulk Terminal	0	0	0	0	7	0	0	7	0	0	0	0	0	0	0	0	7	
Pipeline	0	0	0	0	0	0	18	18	631	26	10	0	1	668	0	0	686	
Natural Gas Processing Plant	0	0	0	0	(s)	0	41	42	96	2	0	(s)	0	98	(s)	4	145	
Total	0	0	0	0	7	0	59	67	727	32	27	1	6	793	2	124	987	
<b>Ethane-Propane Mixtures</b>																		
Refinery	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	
Bulk Terminal	0	0	0	0	0	0	4	4	434	5,839	0	0	0	6,273	0	0	6,277	
Pipeline	0	0	0	0	66	0	427	493	712	81	2	0	121	916	165	0	1,574	
Natural Gas Processing Plant	0	0	0	0	0	0	1,419	1,419	331	6,964	0	(s)	420	7,715	0	0	9,134	
Total	0	0	0	0	66	0	1,850	1,916	1,477	12,885	2	(s)	541	14,905	165	0	16,986	
<b>Isobutane</b>																		
Refinery	0	4	4	60	153	31	168	412	138	174	325	11	6	654	62	48	1,180	
Bulk Terminal	0	0	0	0	73	0	135	208	110	682	0	0	0	792	0	0	1,000	
Pipeline	0	0	0	1	371	8	162	542	179	10	0	148	57	394	42	0	978	
Natural Gas Processing Plant	1	1	2	61	47	2	1,007	1,056	241	1,832	1,128	62	79	3,343	2	150	4,551	
Total	1	5	6	61	644	41	1,472	2,218	668	2,698	1,453	221	142	5,183	106	198	7,709	
<b>Other Hydrocarbons and Alcohol</b>																		
Refinery	0	4	4	0	88	0	4	92	8	70	4	0	0	82	1	4	183	
Total	0	4	4	0	88	0	4	92	8	70	4	0	0	82	1	4	183	
<b>Unfinished Oils</b>																		
Refinery	3,358	547	3,905	46	2,707	170	1,419	4,342	1,457	8,029	5,030	199	193	14,908	761	5,324	29,240	
Naphthas and Lighter	1,196	17	1,213	0	2,572	32	969	3,573	610	5,908	1,279	35	3	7,835	770	3,750	17,141	
Kerosene and Lighter Gas Oils	7,834	429	8,263	95	4,512	316	2,783	7,706	2,041	10,493	7,257	319	9	20,119	1,057	11,935	49,080	
Heavy Gas Oils	1,643	241	1,884	3	3,737	21	1,888	5,649	309	3,392	3,089	47	8	6,845	620	5,374	20,372	
Residuum	14,031	1,234	15,265	144	13,528	539	7,059	21,270	4,417	27,822	16,655	600	213	49,707	3,208	26,383	115,833	
Total																		

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, March 31, 1982  
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V West Coast
<b>Motor Gasoline Blending Components</b>																	
Refinery .....	5,666	214	5,880	33	7,153	829	2,774	10,789	1,743	9,391	6,838	118	297	18,387	3,629	9,120	47,805
Bulk Terminal .....	206	0	206	6	90	1	254	351	440	45	0	1	0	486	4	100	1,147
Pipeline .....	0	0	0	0	26	2	84	112	27	0	0	0	0	27	0	0	139
Total .....	5,872	214	6,086	39	7,269	832	3,112	11,252	2,210	9,436	6,838	119	297	18,900	3,633	9,220	49,091
<b>Aviation Gasoline Blending Components</b>																	
Refinery .....	0	0	0	0	178	0	17	195	18	113	176	0	0	307	0	156	658
Total .....	0	0	0	0	178	0	17	195	18	113	176	0	0	307	0	156	658
<b>Total Finished Motor Gasoline</b>																	
Refinery .....	5,406	463	5,869	100	7,456	2,109	4,975	14,640	2,277	9,215	5,341	1,051	304	18,188	3,212	7,589	49,498
Bulk Terminal .....	36,692	3,307	39,999	2,271	20,035	4,680	6,174	33,160	2,459	4,378	1,648	2,780	319	11,584	1,830	8,940	95,513
Pipeline .....	14,497	695	15,192	995	6,658	1,396	6,694	15,743	1,672	5,507	3,972	7,916	277	19,344	1,451	2,027	53,757
Natural Gas Processing Plant .....	17	0	17	0	0	0	0	0	30	0	0	0	0	30	4	0	51
Total Finished Motor Gasoline .....	56,612	4,465	61,077	3,366	34,149	8,185	17,843	63,543	6,438	19,100	10,961	11,747	900	49,146	6,497	18,556	198,819
<b>Finished Leaded Motor Gasoline</b>																	
Refinery .....	2,519	261	2,780	65	3,895	1,103	2,845	7,908	1,126	4,923	2,986	915	184	10,134	2,158	3,510	26,490
Bulk Terminal .....	17,336	1,574	18,910	1,238	10,389	2,691	3,685	18,003	1,250	2,501	855	1,424	208	6,238	1,160	4,942	49,253
Pipeline .....	6,743	318	7,061	505	3,492	829	3,685	8,511	706	2,735	1,761	3,513	163	8,878	938	968	26,356
Natural Gas Processing Plant .....	17	0	17	0	0	0	0	0	24	0	0	0	0	24	3	0	44
Total .....	26,615	2,153	28,768	1,808	17,776	4,623	10,215	34,422	3,106	10,159	5,602	5,852	555	25,274	4,259	9,420	102,143
<b>Finished Unleaded Motor Gasoline</b>																	
Refinery .....	2,887	202	3,089	35	3,561	1,006	2,130	6,732	1,151	4,292	2,355	136	120	8,054	1,052	4,070	22,997
Bulk Terminal .....	19,338	1,733	21,071	1,033	9,630	1,989	2,485	15,137	1,205	1,877	793	1,356	111	5,342	670	3,998	46,218
Pipeline .....	7,754	377	8,131	490	3,166	566	3,009	7,231	966	2,772	2,211	4,403	114	10,466	513	1,059	27,400
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	6	0	0	0	0	6	1	0	7
Total .....	29,979	2,312	32,291	1,558	16,357	3,561	7,624	29,100	3,328	8,941	5,359	5,895	345	23,868	2,236	9,127	96,622
<b>Gasohol</b>																	
Refinery .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	9	11
Bulk Terminal .....	18	0	18	0	16	0	4	20	4	0	0	0	0	4	0	0	42
Pipeline .....	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total .....	18	0	18	0	16	1	4	21	4	0	0	0	0	4	2	9	54
<b>Finished Aviation Gasoline</b>																	
Refinery .....	30	0	30	0	185	0	51	236	24	364	214	0	0	602	46	194	1,108
Bulk Terminal .....	367	47	414	1	242	60	64	367	64	49	2	19	39	173	16	396	1,366
Pipeline .....	0	0	0	0	10	0	35	45	40	1	0	24	0	65	0	0	110
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	57	0	0	0	0	57	0	0	57
Total .....	397	47	444	1	437	60	150	648	185	414	216	43	39	897	62	590	2,641
<b>Naphtha-Type Jet Fuel</b>																	
Refinery .....	262	41	303	0	186	38	541	765	328	802	431	153	258	1,972	161	911	4,112
Bulk Terminal .....	21	0	21	3	36	50	156	245	231	152	0	48	0	431	18	92	807
Pipeline .....	278	0	278	3	1	73	87	164	93	0	43	126	330	592	115	377	1,526
Total .....	561	41	602	6	223	161	784	1,174	652	954	474	327	588	2,995	294	1,380	6,445

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, March 31, 1982  
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV			United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ky.	Minn., Wisc., Daks.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La. Ark.	New Mexico	Total	Rocky Mt.		Dist. V West Coast
Kerosene-Type Jet Fuel																	
Refinery	892	11	903	61	1,131	77	340	1,609	277	2,610	2,425	13	37	5,362	296	3,978	12,148
Bulk Terminal	5,158	175	5,333	58	2,097	414	670	3,239	201	1,097	65	39	25	1,427	178	2,370	12,547
Pipeline	2,714	95	2,809	101	783	158	1,679	2,721	1,042	1,547	572	1,830	69	5,060	150	646	11,386
Total	8,764	281	9,045	220	4,011	649	2,689	7,569	1,520	5,254	3,062	1,882	131	11,849	624	6,994	36,081
Kerosene																	
Refinery	131	68	199	0	444	17	159	620	56	908	555	10	83	1,612	38	86	2,555
Bulk Terminal	3,010	252	3,262	163	724	59	12	958	11	384	41	24	0	460	36	74	4,790
Pipeline	408	7	415	72	130	0	315	517	7	93	277	105	0	482	0	0	1,414
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	2	0	0	(s)	1	4	0	0	4
Total	3,549	327	3,876	235	1,298	76	486	2,095	76	1,385	873	139	84	2,558	74	160	8,763
Total Distillate Fuel Oils																	
Refinery	4,688	512	5,200	69	5,991	1,341	4,353	11,754	1,025	7,947	4,604	1,098	389	15,063	2,373	5,504	39,894
Bulk Terminal	31,882	2,166	34,048	1,297	11,394	3,982	4,522	21,195	994	1,922	826	954	100	4,796	720	5,007	65,766
Pipeline	5,426	256	5,682	348	1,617	971	4,313	7,249	446	2,112	1,443	3,433	175	7,609	604	926	22,070
Natural Gas Processing Plant	0	0	0	0	0	0	(s)	(s)	1	0	0	0	0	1	(s)	0	2
Total	41,996	2,934	44,930	1,714	19,002	6,294	13,188	40,198	2,466	11,981	6,873	5,485	664	27,469	3,697	11,437	127,732
Dist. Fuel Oils Less No. 4 Fuel Oil																	
Refinery	4,688	503	5,191	69	5,938	1,341	4,353	11,701	955	7,747	4,432	994	318	14,446	2,363	5,454	39,155
Bulk Terminal	30,315	2,166	32,481	1,282	11,282	3,982	4,522	21,068	994	1,916	826	953	100	4,789	720	4,950	64,006
Pipeline	5,426	256	5,682	348	1,617	971	4,313	7,249	446	2,112	1,443	3,433	175	7,609	604	926	22,070
Natural Gas Processing Plant	0	0	0	0	0	0	(s)	(s)	1	0	0	0	0	1	(s)	0	2
Total	40,429	2,925	43,354	1,699	18,837	6,294	13,188	40,018	2,396	11,775	6,701	5,380	593	26,845	3,687	11,330	125,235
No. 4 Fuel Oil																	
Refinery	0	9	9	0	53	0	0	53	70	200	172	104	71	617	10	50	739
Bulk Terminal	1,567	0	1,567	15	112	0	0	127	0	6	0	1	0	7	0	57	1,758
Total	1,567	9	1,576	15	165	0	0	180	70	206	172	105	71	624	10	107	2,497
Residual Fuel Oils																	
Refinery	3,849	174	4,023	76	2,370	348	628	3,422	332	4,945	3,798	319	74	9,468	550	8,148	25,611
Bulk Terminal	20,740	66	20,806	244	2,250	210	831	3,535	9	1,311	3,860	39	0	5,219	0	2,163	31,723
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15
Total	24,589	240	24,829	320	4,620	558	1,459	6,957	341	6,256	7,658	358	74	14,687	550	10,326	57,349
Naphtha < 400 Deg. Petro. Feedstock																	
Refinery	269	0	269	0	318	0	94	412	124	1,689	411	12	0	2,236	0	232	3,149
Total	269	0	269	0	318	0	94	412	124	1,689	411	12	0	2,236	0	232	3,149
Other Oils > 400 Deg. Petro. Feedstock																	
Refinery	4	88	92	0	190	0	1	191	168	704	291	38	0	1,201	0	166	1,650
Total	4	88	92	0	190	0	1	191	168	704	291	38	0	1,201	0	166	1,650
Special Naphthas																	
Refinery	22	51	73	1	178	0	193	372	45	1,313	38	171	0	1,567	2	300	2,314
Bulk Terminal	959	7	966	79	154	28	37	298	0	2	1	8	0	11	0	45	1,320
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	124	0	(s)	0	0	125	0	0	125
Total	981	58	1,039	80	332	28	230	670	169	1,315	39	179	0	1,703	2	345	3,759

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, March 31, 1982  
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II						PAD District III				PAD District IV		United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La., Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	Dist. V West Coast
<b>Lubricants</b>																
Refinery																
Bright Stock	166	488	654	0	64	0	74	138	0	245	121	0	0	366	7	46
Neutral	781	329	1,110	0	550	0	440	990	0	1,735	1,119	59	0	2,913	77	517
Other	756	131	887	0	177	0	140	317	45	2,059	338	142	1	2,585	10	103
Bulk Terminals	1,036	252	1,288	15	439	25	97	576	8	30	262	68	3	371	1	749
Total	2,739	1,200	3,939	15	1,230	25	751	2,021	53	4,069	1,840	269	4	6,235	95	1,415
<b>Wax, Microcrystalline</b>																
Refinery	0	38	38	0	0	0	15	15	25	25	8	0	0	58	0	0
Total	0	38	38	0	0	0	15	15	25	25	8	0	0	58	0	0
<b>Wax, Crystalline--Fully Refined</b>																
Refinery	12	24	36	0	29	0	21	50	0	75	128	0	0	203	6	35
Total	12	24	36	0	29	0	21	50	0	75	128	0	0	203	6	35
<b>Wax, Crystalline--Other</b>																
Refinery	3	65	68	0	4	0	9	13	0	122	0	0	0	122	0	21
Total	3	65	68	0	4	0	9	13	0	122	0	0	0	122	0	21
<b>Petroleum Coke</b>																
Refinery	999	0	999	0	355	347	233	935	0	105	533	28	0	666	568	1,526
Total	999	0	999	0	355	347	233	935	0	105	533	28	0	666	568	1,526
<b>Asphalt</b>																
Refinery	2,094	428	2,520	409	3,419	2,219	1,638	7,685	813	792	901	1,310	273	4,089	3,175	2,167
Bulk Terminal	2,456	431	2,887	175	1,425	1,048	227	2,875	0	0	178	50	0	228	0	459
Total	4,550	857	5,407	584	4,844	3,267	1,865	10,560	813	792	1,079	1,360	273	4,317	3,175	2,626
<b>Road Oil</b>																
Refinery	0	0	0	0	8	0	5	13	0	0	0	2	0	2	3	20
Total	0	0	0	0	8	0	5	13	0	0	0	2	0	2	3	20
<b>Miscellaneous Products</b>																
Refinery	286	36	322	2	66	12	30	110	67	413	124	48	0	652	0	291
Bulk Terminal	127	0	127	0	27	5	3	35	0	0	0	16	0	16	0	136
Pipeline	2	10	12	9	15	0	0	24	48	0	0	0	0	48	0	84
Natural Gas Processing Plant	0	0	0	0	2	0	(s)	2	72	701	(s)	22	(s)	795	3	0
Total	415	46	461	11	110	17	33	171	187	1,114	124	86	(s)	1,511	3	427
<b>Total Stocks, All Oils</b>	--	--	199,837	--	--	--	--	286,649	--	--	--	--	--	694,997	39,720	179,700
																1,400,902

1 Crude oil data are not collected by refinery district.

2 Includes 33,365 thousands of barrels of domestic crude oil.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

--- Not Applicable.

Table 25. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, March 1982  
(Thousands of Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	II	III	I	I	III	IV	I	II	IV	V	II	III	V	I	III
<b>Crude Oil</b> .....	0	0	0	0	0	0	0	402	1,000	0	110	0	0	0	18,778
<b>Petroleum Products</b> .....	7,249	853	2,858	5,312	2,446	79,824	17,240	0	2,448	0	740	0	967	40	1,021
Natural Gasoline and Isopentane .....	0	0	0	332	0	0	900	0	0	0	332	0	0	0	0
Unfractionated Stream .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant Condensate .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases .....	0	0	956	1,580	117	1,441	5,978	0	231	0	0	0	0	0	64
Unfinished Oils .....	55	0	0	0	0	1,673	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components .....	0	0	0	0	0	0	687	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline .....	5,300	262	1,079	1,828	1,466	44,688	6,121	0	936	0	237	0	696	21	0
Finished Leaded Motor Gasoline .....	2,918	0	485	1,090	810	19,883	3,185	0	530	0	167	0	487	0	0
Finished Unleaded Motor Gasoline .....	2,382	262	594	738	656	24,805	2,936	0	406	0	70	0	209	21	0
Gasohol .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Aviation Gasoline .....	0	0	0	0	19	404	142	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel .....	141	0	0	81	0	618	29	0	157	0	0	0	87	0	0
Kerosene-Type Jet Fuel .....	172	0	45	34	594	8,485	1,430	0	159	0	6	0	48	0	0
Kerosene .....	128	0	13	0	0	1,154	57	0	0	0	0	0	0	0	0
Distillate Fuel Oil .....	1,375	178	271	674	250	16,444	1,023	0	326	0	165	0	136	0	0
Distillate Fuel Oil Less No. 4 .....	1,375	178	271	674	250	16,347	1,023	0	326	0	165	0	136	0	0
No. 4 Fuel Oil .....	0	0	0	0	0	97	0	0	0	0	0	0	0	0	0
Residual Fuel Oil .....	0	197	133	711	0	3,328	84	0	558	0	0	0	0	19	875
Naphtha and Other Oils for Petro. Feedstock .....	38	127	44	26	0	99	45	0	0	0	0	0	0	0	0
Special Naphthas .....	0	0	0	0	0	277	286	0	0	0	0	0	0	0	0
Lubricants .....	40	81	102	46	0	743	221	0	81	0	0	0	0	0	39
Wax .....	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil .....	0	0	57	0	0	143	136	0	0	0	0	0	0	0	0
Miscellaneous Products .....	0	8	158	0	0	317	101	0	0	0	0	0	0	0	43
<b>Total All Products</b> .....	7,249	853	2,858	5,312	2,446	80,226	18,240	0	2,558	0	740	0	967	3,322	19,799

Note: Total may not equal sum of components due to independent rounding.  
Sources: See Explanatory Notes on Data Collection and Estimation

**Table 26. Movements of Petroleum Products by Pipeline Between PAD Districts, March 1982**  
(Thousands of Barrels)

Commodity	From I to		From II to			From III to			From IV to			V
	II	I	III	IV	I	II	III	IV	V	II	III	
Natural Gasoline and Isopentane .....	0	0	0	332	0	0	0	900	0	0	332	0
Unfractionated Stream .....	0	0	0	0	0	0	0	0	0	0	0	0
Plant Condensate .....	0	0	0	0	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases .....	0	956	1,580	117	1,165	5,921	0	0	0	0	0	0
Motor Gasoline Blending Components .....	0	0	0	0	0	687	0	0	0	0	0	0
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline .....	4,457	955	1,828	1,466	34,510	5,305	0	936	237	0	0	696
Finished Leaded Motor Gasoline .....	2,462	426	1,090	1,090	15,307	2,924	0	530	167	0	0	487
Finished Unleaded Motor Gasoline .....	1,995	529	738	656	19,203	2,381	0	406	70	0	0	209
Gasohol .....	0	0	0	0	0	0	0	0	0	0	0	0
Finished Aviation Gasoline .....	0	0	0	19	0	117	0	0	0	0	0	0
Naphtha-Type Jet Fuel .....	0	0	81	0	240	29	0	157	0	0	0	87
Kerosene-Type Jet Fuel .....	164	45	34	594	5,142	1,212	0	159	6	0	0	48
Kerosene .....	42	13	0	0	897	57	0	0	0	0	0	0
Distillate Fuel Oil .....	1,106	246	597	250	13,303	603	0	306	165	0	0	136
Distillate Fuel Oil Less No. 4 .....	1,106	246	597	250	13,303	603	0	306	165	0	0	136
No. 4 Fuel Oil .....	0	0	0	0	0	0	0	0	0	0	0	0
Residual Fuel Oil .....	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products .....	0	158	0	0	0	40	0	0	0	0	0	0
Total .....	5,769	2,373	4,452	2,446	55,257	14,871	0	1,558	740	0	0	967

Note: Total may not equal sum of components due to independent rounding.  
Source: See Explanatory Notes on Data Collection and Estimation.

**Table 27. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, March 1982**  
(Thousands of Barrels)

Commodity	From I to		From II to		From III to				From V to				
	II	III	I	III	I	New Eng	Cent Atl	Low Atl	II	V	III		
Crude Oil .....	0	0	0	0	0	402	0	402	0	1,000	110	3,282	18,777
Petroleum Products .....	1,480	853	485	860	24,567	2,096	4,851	17,620	2,369	375	40	1,021	
Liquefied Petroleum Gases .....	0	0	0	0	276	0	0	276	57	0	0	0	
Unfinished Oils .....	55	0	0	0	1,673	220	1,402	51	0	231	0	64	
Finished Motor Gasoline .....	843	262	124	0	10,178	383	458	9,337	816	0	21	0	
Finished Aviation Gasoline .....	0	0	0	0	404	0	217	187	25	0	0	0	
Naphtha-Type Jet Fuel .....	141	0	0	0	378	13	0	365	0	0	0	0	
Kerosene-Type Jet Fuel .....	8	0	0	0	3,343	151	480	2,712	218	0	0	0	
Kerosene .....	86	0	0	0	257	0	242	15	0	0	0	0	
Distillate Fuel Oil .....	269	178	25	77	3,141	530	625	1,986	420	0	0	0	
Residual Fuel Oil .....	0	197	133	711	3,328	722	550	2,056	84	63	19	875	
Naphtha and Other Oils for Petro. Feed. Use .....	38	127	44	26	99	0	22	77	45	0	0	0	
Special Naphthas .....	0	0	0	0	277	33	155	89	286	0	0	0	
Lubricants .....	40	81	102	46	743	34	505	204	221	81	0	39	
Wax .....	0	0	0	0	10	0	10	0	0	0	0	0	
Asphalt and Road Oil .....	0	0	57	0	143	0	0	143	136	0	0	0	
Miscellaneous Products .....	0	8	0	0	317	10	185	122	61	0	0	43	
Total .....	1,480	853	485	860	24,969	2,096	5,253	17,620	3,369	485	3,322	19,799	

Note: Total may not equal sum of components due to independent rounding.  
Source: See Explanatory Notes on Data Collection and Estimation.

**Table 28. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker and Barge Between PAD Districts, March 1982**  
(Thousands of Barrels)

Commodity	P.A.D. District I			P.A.D. District II			P.A.D. District III			P.A.D. District IV			P.A.D. District V		
	Receipts into PADD I	Shipments from PADD I	Net Receipts PADD I	Receipts into PADD II	Shipments from PADD II	Net Receipts PADD II	Receipts into PADD III	Shipments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Shipments from PADD IV	Net Receipts PADD IV	Receipts into PADD V	Shipments from PADD V	Net Receipts PADD V
<b>Crude Oil</b> .....	3,684	0	3,684	1,000	0	1,000	18,778	1,512	17,266	0	0	0	110	22,060	-21,950
<b>Petroleum Products</b> .....	82,722	8,102	74,620	25,229	10,616	14,613	7,186	99,512	-92,326	2,446	1,707	739	3,415	1,061	2,354
Natural Gasoline .....	0	0	0	1,232	332	900	332	900	-568	0	332	-332	0	0	0
Unfractionated Stream .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant Condensate .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases .....	2,397	0	2,397	5,978	2,653	3,325	1,580	7,419	-5,839	117	0	117	0	0	0
Unfinished Oils .....	1,673	55	1,618	55	0	55	64	1,904	-1,840	0	0	0	0	64	167
Motor Gasoline Blending Components .....	0	0	0	687	0	687	0	687	-687	0	0	0	0	0	0
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline .....	45,788	5,562	40,226	11,658	4,373	7,285	2,090	51,745	-49,655	1,466	933	533	1,632	21	1,611
Finished Leaded Motor Gasoline .....	20,368	2,918	17,450	6,270	2,385	3,885	1,090	23,598	-22,508	810	654	156	1,017	0	1,017
Finished Unleaded Motor Gasoline .....	25,420	2,644	22,776	5,388	1,988	3,400	1,000	28,147	-27,147	656	279	377	615	21	594
Gasohol .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Aviation Gasoline .....	404	0	404	142	19	123	0	546	-546	19	0	19	0	0	0
Naphtha-Type Jet Fuel .....	618	141	477	170	81	89	81	804	-723	0	87	-87	244	0	244
Kerosene-Type Jet Fuel .....	8,530	172	8,358	1,608	673	935	34	10,074	-10,040	594	54	540	207	0	207
Kerosene .....	1,167	128	1,039	185	13	172	0	1,211	-1,211	0	0	0	0	0	0
Distillate Fuel Oil .....	16,715	1,553	15,162	2,563	1,195	1,368	852	17,793	-16,941	250	301	-51	462	0	462
Distillate Fuel Oil Less No. 4 .....	16,618	1,553	15,065	2,563	1,195	1,368	852	17,696	-16,844	250	301	-51	462	0	462
No. 4 Fuel Oil .....	97	0	97	0	0	0	0	97	-97	0	0	0	0	0	0
Residual Fuel Oil .....	3,480	197	3,283	84	844	-760	1,783	3,970	-2,187	0	0	0	558	894	-336
Naphtha and Other Oils for Petro. Feedstock Use .....	143	165	-22	83	70	13	153	144	9	0	0	0	0	0	0
Special Naphthas .....	277	0	277	286	0	286	0	563	-563	0	0	0	0	0	0
Lubricants .....	845	121	724	261	148	113	166	1,045	-879	0	0	0	81	39	42
Wax .....	10	0	10	0	0	0	0	10	-10	0	0	0	0	0	0
Asphalt and Road Oil .....	200	0	200	136	57	79	0	279	-279	0	0	0	0	0	0
Miscellaneous Products .....	475	8	467	101	158	-57	51	418	-367	0	0	0	0	43	-43
<b>Total All Products</b> .....	86,406	8,102	78,304	26,229	10,616	15,613	25,964	101,024	-75,060	2,446	1,707	739	3,525	23,121	-19,596

Note: Total may not equal sum of components due to independent rounding.  
Sources: See Explanatory Notes on Data Collection and Estimation.

Table 29. Production of No.4 Fuel Oil and Residual Fuel Oil By Sulfur Content, March 1982  
(Thousands of Barrels)

Commodity	PAD District I			PAD District II				PAD District III			PAD District IV		United States			
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.		New Mexico	Total	Rocky Mt.
No. 4 Fuel Oil .....	0	13	13	0	21	0	0	21	5	405	-314	53	228	377	28	73
0.00 to 0.30% Sulfur .....	0	0	0	0	1	0	0	1	0	333	-54	4	0	283	0	284
0.31 to 0.50% Sulfur .....	0	0	0	0	2	0	0	2	0	0	0	0	0	0	28	30
0.51 to 1.00% Sulfur .....	0	0	0	0	18	0	0	18	4	72	0	2	228	306	0	351
1.01 to 2.00% Sulfur .....	0	13	13	0	0	0	0	0	1	0	0	0	0	1	0	25
Greater Than 2.00% Sulfur .....	0	0	0	0	0	0	0	0	0	0	-260	47	0	-213	0	-178
Residual Fuel Oil .....	5,184	204	5,388	119	2,357	247	815	3,538	1,007	6,226	5,848	482	173	13,736	312	34,736
0.00 to 0.30% Sulfur .....	472	30	502	0	0	0	0	0	107	447	25	113	55	747	8	1,536
0.31 to 0.50% Sulfur .....	1,514	80	1,594	0	49	3	102	154	128	53	38	109	9	337	128	4,464
0.51 to 1.00% Sulfur .....	999	0	999	119	1,037	0	351	1,507	640	1,401	964	161	5	3,171	76	10,933
1.01 to 2.00% Sulfur .....	152	94	246	0	671	76	170	917	123	123	542	15	104	907	-33	9,620
Greater Than 2.00% Sulfur .....	2,047	0	2,047	0	600	168	192	960	9	4,202	4,279	84	0	8,574	133	12,270

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 30. Stocks of No.4 Fuel Oil and Residual Fuel Oil By Sulfur Content, March 1982  
(Thousands of Barrels)

Commodity	PAD District I				PAD District II						PAD District III					PAD District IV			United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	Dist. V West Coast			
<b>No. 4 Fuel Oil -- 0.00 to 0.30% Sulfur</b>																			
Refinery	0	4	4	0	1	0	0	0	1	0	42	18	12	0	72	0	0	77	
Bulk Terminal	479	0	479	0	0	0	0	0	0	0	6	0	1	0	7	0	0	486	
Total	479	4	483	0	1	0	0	0	1	0	48	18	13	0	79	0	0	563	
<b>No.4 Fuel Oil -- 0.31 to 0.50% Sulfur</b>																			
Refinery	0	0	0	0	4	0	0	0	4	20	0	1	0	0	21	8	19	52	
Bulk Terminal	81	0	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	81	
Total	81	0	81	0	4	0	0	0	4	20	0	1	0	0	21	8	19	133	
<b>No. 4 Fuel Oil -- 0.51 to 1.00% Sulfur</b>																			
Refinery	0	0	0	0	48	0	0	0	48	27	158	0	3	71	259	0	16	323	
Bulk Terminal	547	0	547	0	45	0	0	0	45	0	0	0	0	0	0	0	0	592	
Total	547	0	547	0	93	0	0	0	93	27	158	0	3	71	259	0	16	915	
<b>No. 4 Fuel Oil -- 1.01 to 2.00% Sulfur</b>																			
Refinery	0	5	5	0	0	0	0	0	0	23	0	38	0	0	61	2	9	77	
Bulk Terminal	410	0	410	0	0	0	0	0	0	0	0	0	0	0	0	0	57	467	
Total	410	5	415	0	0	0	0	0	0	23	0	38	0	0	61	2	56	544	
<b>No.4 Fuel Oil -- Greater Than 2.00% Sulfur</b>																			
Refinery	0	0	0	0	0	0	0	0	0	0	0	115	89	0	204	0	6	210	
Bulk Terminal	50	0	50	15	67	0	0	0	82	0	0	0	0	0	0	0	0	132	
Total	50	0	50	15	67	0	0	0	82	0	0	115	89	0	204	0	6	342	
<b>Residual Fuel Oil -- 0.00 to 0.30% Sulfur</b>																			
Refinery	328	38	366	0	0	0	0	0	101	269	38	19	25	452	116	510	1,444		
Bulk Terminal	2,569	0	2,569	0	13	0	0	13	0	10	1,931	2	0	1,943	0	0	4,525		
Total	2,897	38	2,935	0	13	0	0	13	101	279	1,969	21	25	2,395	116	510	5,969		
<b>Residual Fuel Oil -- 0.31 to 0.50% Sulfur</b>																			
Refinery	871	30	901	0	109	3	11	123	29	73	33	92	1	228	51	1,655	2,958		
Bulk Terminal	1,412	0	1,412	0	165	0	51	216	0	33	19	0	0	52	0	57	1,737		
Total	2,283	30	2,313	0	274	3	62	339	29	106	52	92	1	280	51	1,712	4,695		
<b>Residual Fuel Oil -- 0.51 to 1.00% Sulfur</b>																			
Refinery	1,329	0	1,329	76	1,111	0	240	1,427	133	1,508	1,362	116	2	3,121	14	426	5,317		
Bulk Terminal	4,476	33	4,509	167	1,201	19	143	1,530	9	527	253	0	0	789	0	275	7,103		
Total	5,805	33	5,838	243	2,312	19	383	2,957	142	2,035	1,615	116	2	3,910	14	701	13,420		
<b>Residual Fuel Oil -- 1.01 to 2.00% Sulfur</b>																			
Refinery	788	106	894	0	496	162	219	877	58	259	586	21	46	970	186	4,991	7,914		
Bulk Terminal	2,893	20	2,913	77	574	120	404	1,175	0	3	233	0	0	236	0	1,534	5,658		
Total	3,681	126	3,807	77	1,070	282	623	2,052	58	262	819	21	46	1,206	186	6,525	13,572		
<b>Residual Fuel Oil -- Greater than 2.00% Sulfur</b>																			
Refinery	533	0	533	0	654	183	158	995	11	2,836	1,779	71	0	4,697	183	566	6,974		
Bulk Terminal	9,390	13	9,403	0	297	71	233	601	0	738	1,424	37	0	2,199	0	297	12,503		
Total	9,923	13	9,936	0	951	254	391	1,596	11	3,574	3,203	108	0	6,896	183	863	19,477		
<b>Residual Fuel Oil -- Sulfur Content Not Specified</b>																			
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Note: Total may not equal sum of components due to independent rounding.  
Sources: See Explanatory Notes on Data Collection and Estimation.

Table 31. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, March 1982  
(Thousands of Barrels)

Country	Residual Fuel Oil						Not Specified	Total
	0.00 to 0.30%	0.31 to 0.50%	0.51 to 1.00%	1.01 to 2.00%	Greater Than 2.00%			
<b>Arab OPEC</b>								
Algeria .....	2,133	0	0	0	0	0	0	2,133
Kuwait .....	0	0	0	0	0	0	0	0
Libya .....	0	0	0	0	0	0	0	0
Qatar .....	0	0	0	0	0	0	0	0
Saudi Arabia .....	0	0	0	0	0	0	0	0
United Arab Emirates .....	0	0	0	0	0	0	0	0
Subtotal Arab OPEC .....	2,133	0	0	0	0	0	0	2,133
<b>Other OPEC</b>								
Ecuador .....	0	0	0	219	0	0	0	219
Gabon .....	0	0	0	0	0	0	0	0
Indonesia .....	413	130	0	0	0	0	0	543
Iran .....	0	0	0	0	0	0	0	0
Nigeria .....	0	0	0	0	0	0	0	0
Venezuela .....	863	0	0	1,624	5,803	0	0	8,290
Subtotal Other OPEC .....	1,276	130	0	1,843	5,803	0	0	9,052
<b>Other</b>								
Angola .....	0	0	0	0	0	0	0	0
Australia .....	0	0	0	0	0	0	0	0
Bahamas .....	322	0	0	0	185	0	0	507
Bolivia .....	0	0	0	0	0	0	0	0
Brazil .....	172	0	240	0	0	0	0	413
Brunei .....	0	65	0	12	0	0	0	77
Canada .....	65	0	724	74	9	0	0	872
Congo .....	(s)	0	0	0	0	0	0	(s)
Egypt .....	0	0	0	0	0	0	0	0
France .....	0	0	0	0	0	0	0	0
Ghana .....	135	0	0	0	0	0	0	135
Malaysia .....	0	0	0	0	0	0	0	0
Mexico .....	0	0	0	0	335	0	0	335
Netherlands .....	0	0	0	0	248	0	0	248
Netherlands Antilles .....	877	0	100	395	3,638	0	0	5,010
Norway .....	0	0	0	0	0	0	0	0
Oman .....	0	0	0	0	0	0	0	0
People's Republic of China .....	0	0	0	0	0	0	0	0
Peru .....	0	0	480	0	0	0	0	480
Trinidad .....	256	0	0	599	0	0	0	855
Tunisia .....	0	0	0	0	0	0	0	0
United Kingdom .....	0	0	0	0	0	0	0	0
Virgin Islands .....	359	602	1,877	1,351	1,512	0	0	5,701
Yugoslavia .....	0	0	0	0	0	0	0	0
Zaire .....	0	0	0	0	0	0	0	0
Other Western Hemisphere .....	517	0	572	0	0	0	0	1,089
Other Eastern Hemisphere .....	323	426	542	0	0	0	0	1,291
Subtotal Other .....	3,026	1,092	4,536	2,431	5,928	0	0	17,012
<b>Total imports .....</b>	<b>6,435</b>	<b>1,222</b>	<b>4,536</b>	<b>4,274</b>	<b>11,731</b>	<b>0</b>	<b>0</b>	<b>28,198</b>

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

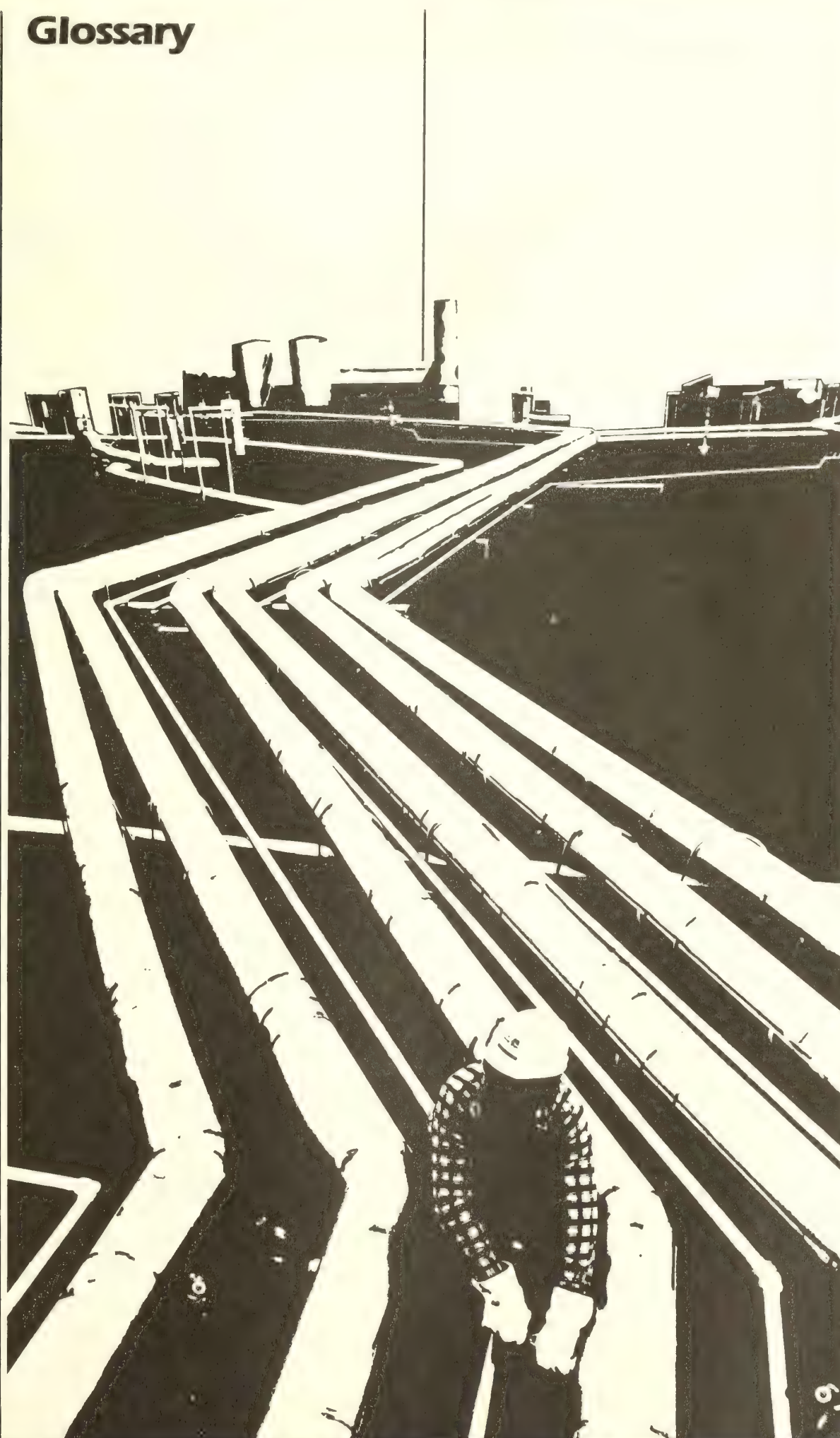
**Table 32. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, March 1982**  
(Thousands of Barrels)

State	Residual Fuel Oil					Not Specified	Total
	0.00 to 0.30%	0.31 to 0.50%	0.51 to 1.00%	1.01 to 2.00%	Greater Than 2.00%		
<b>PAD District I</b> .....	<b>5,950</b>	<b>966</b>	<b>3,760</b>	<b>3,637</b>	<b>9,747</b>	<b>0</b>	<b>24,060</b>
Connecticut .....	0	0	0	0	47	0	47
Florida .....	3	0	295	200	1,463	0	1,960
Georgia .....	0	0	0	0	167	0	167
Maine .....	0	0	242	747	1,632	0	2,621
Maryland .....	0	0	83	0	475	0	559
Massachusetts .....	0	0	382	382	2,223	0	2,986
New Jersey .....	1,788	77	295	118	502	0	2,780
New York .....	4,153	347	1,538	1,638	1,347	0	9,023
North Carolina .....	0	0	0	235	639	0	874
Pennsylvania .....	0	369	777	231	30	0	1,407
Rhode Island .....	0	173	0	0	0	0	173
South Carolina .....	6	0	0	0	152	0	158
Virginia .....	0	0	149	85	1,070	0	1,304
<b>PAD District II</b> .....	<b>65</b>	<b>0</b>	<b>515</b>	<b>25</b>	<b>9</b>	<b>0</b>	<b>614</b>
Michigan .....	65	0	515	0	0	0	580
North Dakota .....	0	0	0	25	9	0	34
<b>PAD District III</b> .....	<b>3</b>	<b>0</b>	<b>239</b>	<b>599</b>	<b>1,975</b>	<b>0</b>	<b>2,816</b>
Louisiana .....	2	0	239	599	1,827	0	2,667
Texas .....	1	0	0	0	148	0	149
<b>PAD District IV</b> .....	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>PAD District V</b> .....	<b>417</b>	<b>257</b>	<b>22</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>708</b>
California .....	413	0	0	0	0	0	413
Hawaii .....	3	257	0	12	0	0	273
Washington .....	0	0	22	0	0	0	22
<b>All PAD Districts</b> .....	<b>6,435</b>	<b>1,222</b>	<b>4,536</b>	<b>4,274</b>	<b>11,731</b>	<b>0</b>	<b>28,198</b>

Note: Total may not equal sum of components due to independent rounding.  
Sources: See Explanatory Notes on Data Collection and Estimation.



## Glossary



## Glossary

## Definitions of Petroleum Products and Other Terms

**Alcohol.** The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group,  $\text{CH}(\text{CH})_n\text{-OH}$ . "Alcohol" includes ethanol and methanol.

**Asphalt.** A dark-brown-to-black cement-like material, containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor is 5.5 42-gallon barrels per short ton.

**ASTM.** The acronym for the American Society for Testing and Materials.

**Aviation Gasoline Blending Components.** Finished components in the gasoline range which will be used for blending or compounding into finished aviation gasoline.

**Aviation Gasoline (Finished).** All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D 910 and Military Specification MIL-G-5572.

**Barrel.** A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt, and wax to barrels are given in the definitions for these products.

**Butane.** A normally gaseous paraffinic hydrocarbon,  $\text{C}_4\text{H}_{10}$ . It is extracted from natural gas or refinery gas streams. Butane is covered by ASTM Specification D1835 and Gas Processors Association Specification for commercial butane.

- **Normal Butane**—A saturated straight-chain hydrocarbon of butane. It is a colorless paraffinic gas that boils at a temperature of  $31.1^\circ\text{F}$ . This classification includes mixtures of gases that contain 80 percent or more normal butane.

- **Other Butanes**—All butanes not included as normal butane or isobutane.

**Butane-Propane Mixtures.** Mixtures consisting exclusively of butane and propane that conform to ASTM Specification D1835 and Gas Processors Association Specification for commercial butane-propane. They are extracted from natural gas and refinery gas streams.

**Butylene.** An olefinic hydrocarbon,  $\text{C}_4\text{H}_8$ , recovered from refinery processes. It is reported in the "Butane" category.

**Coal.** A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D 388.

**Crude Oil (including Lease Condensate).** A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Lease condensate is included. Drips are also included, but topped crude (residual) oil and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

- **Domestic**—Crude oil produced in the United States or from its outer continental shelf as defined in 43 U.S.C. 1331. Hydrocarbons such as shale oil and tar sand oil are included.

- **Foreign**—Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

**Distillate Fuel Oil.** A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1 and No. 2 heating oils, No. 1 and No. 2 diesel fuel oils, and No. 4 fuel oil.

- **No. 1 Fuel Oil**—A light distillate fuel oil intended for vaporizing pot-type burners. ASTM Specification D 396 specifies for this grade maximum distillation temperatures of 400° F. at the 10-percent point and 550° F. at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100° F.

- **No. 2 Fuel Oil**—A distillate fuel oil for domestic heating for use in atomizing-type burners or for moderate capacity commercial-industrial burner units. ASTM Specification D 396 specifies for this grade temperatures at the 90-percent point between 540° and 640° F., and kinematic viscosities between 2.0 and 3.6 centistokes at 100° F.

- **No. 1 and No. 2 Diesel Fuel Oils**—Distillate fuel oils used in compression-ignition engines, as given by ASTM Specification D 975:

1. **No. 1-D**—A volatile distillate fuel oil in the 400° to 550° F. boiling range for engines in service requiring frequent speed and load changes. Type C-B diesel fuel, which is used for city buses and similar operations, is included.

2. **No. 2-D**—A distillate fuel oil of lower volatility in the 540° to 640° F. boiling range for engines in industrial and heavy mobile service. Type R-R diesel fuel for railroad compression-ignition engines and Type T-T for diesel-engine trucks are included.

- **No. 4 Fuel Oil**—A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D 396 or Federal Specification VV-F-815C; its kinematic viscosity is between 5.8 and 26.4 centistokes at 100° F. Also included is No. 4-D, a fuel oil for low- and medium-speed diesel engines that conforms to ASTM Specification D 975.

**Eastern Hemisphere.** That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa, and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

**Electric Energy (Purchased).** Electricity purchased for refinery operations that is not produced within the refinery complex.

**Ethane.** A normally gaseous paraffinic hydrocarbon,  $C_2H_6$ , extracted from natural gas and refinery gas streams. "Ethane" includes any product containing 90 percent liquid volume or more ethane.

**Ethane-Propane Mixtures.** Mixtures of ethane and propane in which neither component is 90 percent or more of the liquid volume. It is extracted for natural gas and refinery gas streams.

**Ethylene.** An olefinic hydrocarbon,  $C_2H_4$ , recovered from refinery and petrochemical processes. It is reported in the "Ethane" category.

**Field Production.** Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

**Gas Well Gas.** Natural gas produced from gas wells. Such gas may be either associated gas or non-associated gas.

- **Associated Gas**—Free natural gas in immediate contact, but not in solution, with crude oil in the reservoir.

- **Non-Associated Gas**—Free natural gas not in contact with, nor dissolved in, crude oil in the reservoir.

**Imported Crude Oil Burned as Fuel.** The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. "Imported crude oil burned as fuel" includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and oil shale.

**Isobutane.** A saturated branch-chain isomer of butane. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. This classification includes mixtures of gases that contain 80 percent liquid volume or more isobutane. It is extracted from natural gas and refinery gas streams.

**Isopentane.** A saturated branch-chain hydrocarbon,  $C_5H_{12}$ , obtained by fractionation of natural gasoline or isomerization of normal pentane.

**Kerosene.** A petroleum distillate that boils at a temperature between 300° and 550° F., that has a flash point higher than 100° F. by ASTM Method D 56, that has a gravity range from 40° to 46° API, and that has a burning point in the range of 150° to 175° F. It is a clean-burning product suitable for use as an illuminant when burned in wick lamps. Includes grades of kerosene called range oil having properties similar to No. 1 fuel oil, but with a gravity of about 43° API and having a maximum end-point of 625° F. Kerosene is used in space heaters, cook stoves, and water heaters.

**Kerosene-Type Jet Fuel.** A quality kerosene product with an average gravity of 40.7° API, a 10-percent distillation temperature of 400° F., and an end-point of 572° F. It is covered by ASTM Specification D 1655 and Military Specification MIL-T-5624L (Grade JP-5 and JP-8). It is used primarily for commercial turbojet and turboprop aircraft engines.

**Lease Condensate.** A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

**Lease Separator.** A surface facility used for separating casinghead gas from produced crude oil and water and separating gas from that portion of associated gas and non-associated gas that liquefies at the temperature and pressure conditions of the separator.

**Liquefied Petroleum Gases (LPG).** Propane, propylene, butanes, butylene, ethane-propane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids. Formerly called "Liquefied Gases."

**Liquefied Refinery Gases (LRG).** Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration they are retained in the liquid state. The reported categories are ethane and/or ethylene, propane and/or propylene, butane and/or butylene, butane-propane mixtures, and isobutane. Excludes still gases used for chemical or rubber manufacture which are reported as petrochemical feedstocks and also excludes liquefied gases ready for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstocks, other uses, or both.

**Lubricants.** A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories reported are:

- **Bright Stock**—A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.
- **Neutral**—A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100° F. It is prepared by a treatment such as hydrofining, acid treatment, or solvent extraction.
- **Other**—A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

**Miscellaneous Products.** Includes all finished products not classified elsewhere. "Miscellaneous products" include petrolatum, absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and other finished products.

**Motor Gasoline Blending Components.** Finished components in the gasoline range that will be used for blending or compounding into finished motor gasoline. Pool gasoline is included in this category.

**Motor Gasoline (Finished).** A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition

engines. Specifications for motor gasoline, as given in ASTM Specification D 439 or Federal Specification VV-G-1690B, include a boiling range of 122° to 158° F. at the 10-percent point to 365° to 374° F. at the 90-percent point and a Reid vapor pressure range from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

- **Finished Leaded Gasoline**—Contains more than 0.05 grams of lead per gallon or more than 0.005 grams of phosphorus per gallon. The actual lead content of any given gallon, however, may vary as a function of the size of the producer and company according to specific Environmental Protection Agency waiver provisions. Premium and regular grades are included, depending on the octane rating.
- **Finished Unleaded Gasoline**—Contains up to 0.05 grams of lead per gallon and 0.005 grams of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating.
- **Gasohol**—A blend of alcohol and finished motor gasoline that is no more than 90 percent of finished motor gasoline (leaded or unleaded as described above) and no less than 10 percent or more alcohol (ethanol or methanol).

**Motor Gasoline (Total).** Includes finished leaded motor gasoline, finished unleaded motor gasoline, motor gasoline blending components, and gasohol.

**Naphtha-Type Jet Fuel.** A fuel in the heavy naphtha boiling range with an average gravity of 52.8° API and 20 to 90 percent distillation temperatures of 290° to 470° F., meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. This category excludes ram-jet and petroleum rocket fuels, which are included in the "Miscellaneous Products" category.

**Natural Gas.** A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

**Natural Gas Field Facility.** A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, butane, natural gasoline, etc., and to control the quality of natural gas to be marketed.

**Natural Gas Plant Liquids.** Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials, and are classified as follows: Ethane, propane, ethane-propane mix, isobutane, butane, butane-propane mix, isopentane, natural gasoline, plant condensate, unfractionated stream, and other products from natural gas processing plants (i.e., products meeting the standards of finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

**Natural Gas Processing Plant.** A facility designed to recover natural gas liquids from a stream of natural gas that may or may not have been processed through lease separators or natural gas field facilities. The facility also controls the quality of natural gas to be marketed. Cycling plants are classified as gas processing plants.

**Natural Gasoline.** A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Producers Association.

**OPEC.** The acronym for the Organization of Petroleum Exporting Countries, oil-producing and-exporting countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices, and future concession rights. Current members are Algeria,, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

**Operable Distillation Capacity.** The maximum amount of input that can be processed by a crude oil distillation unit in a 24-hour period, making allowances for processing limitations due to types and

grades of inputs, limitations of downstream facilities, scheduled and unscheduled downtimes, and environmental constraints. Includes any shutdown capacity that could be placed in operation within 90 days.

**Other Hydrocarbons.** Materials received by a refinery and consumed as raw materials. Includes hydrogen, coal, tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

**Petrochemical Feedstocks.** Chemical feedstocks derived from petroleum, principally for the manufacture of synthetic rubber and a variety of plastics. The categories reported are "Naphtha-less than 400° F. end-point" and "Other oils over 400° F. end-point."

- Naphtha less than 400° F. end-point—A naphtha with an end point of less than 400° F. and that is reported as used as a petrochemical feedstock.
- Other oils over 400° F. end-point—Oils with an end point over 400° F. and that are reported as used as a petrochemical feedstock.

**Petroleum Coke.** A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 42-gallon barrels per short ton.

- Marketable Coke—Those grades of coke that are produced in delayed or fluid cokers and which may be recovered as relatively pure carbon. This "green" coke may be sold or further purified by calcining.
- Catalyst Coke—In many catalytic operations (i.e., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as fuel in the refinery process. This carbon or coke is not recoverable in a concentrated form.

**Petroleum Products.** Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, natural gasoline and isopentane, plant condensate, unfractionated stream, ethane, liquefied petroleum gases, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400° F. end-point, other oils-over 400° F. end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

**Petroleum Refinery.** An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas plant liquids, other hydrocarbons, and alcohol.

**Plant Condensate.** One of the natural gas plant liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

**Primary Stocks.** Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in transit from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. "Primary Stocks" excludes stocks of foreign origin that are held in bonded warehouse storage.

**Propane.** A normally gaseous hydrocarbon,  $C_3H_8$ , extracted from natural gas and refinery gas streams. It is used primarily as a fuel and as a petrochemical feedstock. Propane is covered by ASTM Specification D1835, Gas Processors Association for commercial and HD-5 propane, and ASTM Specification for special duty propane.

**Propylene.** An olefinic hydrocarbon,  $C_3H_6$ , recovered from refinery and petrochemical processes. It is reported in the "Propane" category.

**Residual Fuel Oil.** Topped crude of refinery operations. "Residual Fuel Oil" includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D 396 and Federal Specification VV-F-815C; Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2; Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

**Road Oil.** Any heavy petroleum oil, including residual asphaltic oils, used as a dust palliative and surface treatment of roads and highways. It is generally produced in six grades; from 0, the most liquid, to 5, the most viscous.

**Special Naphthas.** All finished products within the gasoline range that are used as paint thinners, cleaners, and solvents. These products are refined to a specified flash point and have a boiling range of 90° to 220° F. "Special naphthas" includes all commercial hexane and cleaning solvents conforming to ASTM Specifications D1836 and D 484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

**Steam (Purchased).** Steam that is purchased for use by a refinery that was not generated from within the refinery complex.

**Still Gas (Refinery Gas).** Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, butane, butylene, propane, propylene, etc. Still gas is reported for petrochemical feedstock use and refinery fuel use.

- **Petrochemical Feedstock Use**—Includes all refinery streams which are used by chemical or rubber manufacturing operations for further processing, less the amount of such streams returned to the source refinery. Finished petrochemical products are not included. For example, polyethylene, butadiene, etc. are considered petrochemical products; therefore, only their feedstock equivalents are included.
- **Fuel Use**—All other still gas.

**Strategic Petroleum Reserve (SPR).** Stocks (currently, only crude oil) maintained by the Federal Government for use during periods of major supply interruption.

**Unfinished Oils.** Includes all oils requiring further processing, except those requiring only mechanical blending.

**Unfractionated Stream.** Mixtures of unsegregated natural gas plant liquid components excluding those included in plant condensate. This product is extracted from natural gas.

**Wax.** A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is a light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades reported are microcrystalline, crystalline—fully refined, and crystalline—other. The conversion factor is 280 pounds per 42-gallon barrel.

- **Microcrystalline Wax**—Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics:

Penetration at 77° F. (D-1321)—60 maximum.  
Viscosity at 210° F. in Saybolt Universal Seconds (SUS)  
(D-88)—60 SUS (10.22 centistokes) minimum to 150  
SUS (31.8 centistokes) maximum.  
Oil content (D-721)—5 percent minimum.

- **Crystalline-Fully Refined Wax**—A light-colored paraffin wax having the following characteristics:

Viscosity at 210° F.  
(D-88)—59.9 SUS (10.18 centistokes) maximum.  
Oil Content (D-721)—0.5 percent maximum.  
Other +20 color, Saybolt minimum.

- **Crystalline-Other Wax**—A paraffin wax having the following characteristics:  
Viscosity at 210° F. (D-88)—59.9 SUS (10.18 centistokes) maximum.  
Oil Content (D-721)—0.51 percent minimum to 15 percent maximum.

**Western Hemisphere.** That half of the earth that includes North and South America and the surrounding waters.

# Bureau of Mines Petroleum Refining Districts and PAD Districts

## PAD District

## Refining District

I

**East Coast**—District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

**Appalachian #1**—The State of West Virginia, those parts of the States of Pennsylvania and New York not included in the East Coast District.

**Appalachian #2**—The following counties of the State of Ohio: Erie, Huron, Crawford, Marion, Delaware, Franklin, Pickaway, Ross, Pike, Scioto, and all counties east thereof.

**Indiana—Illinois—Kentucky**—The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and that part of the State of Ohio not included in the Appalachian District.

II

**Minnesota—Wisconsin—North and South Dakota**—The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

**Oklahoma—Kansas—Missouri**—The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

**Texas Inland**—The State of Texas except the Texas Gulf Coast District.

**Texas Gulf Coast**—The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

III

**Louisiana Gulf Coast**—The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

**North Louisiana—Arkansas**—The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

**New Mexico**—The State of New Mexico.

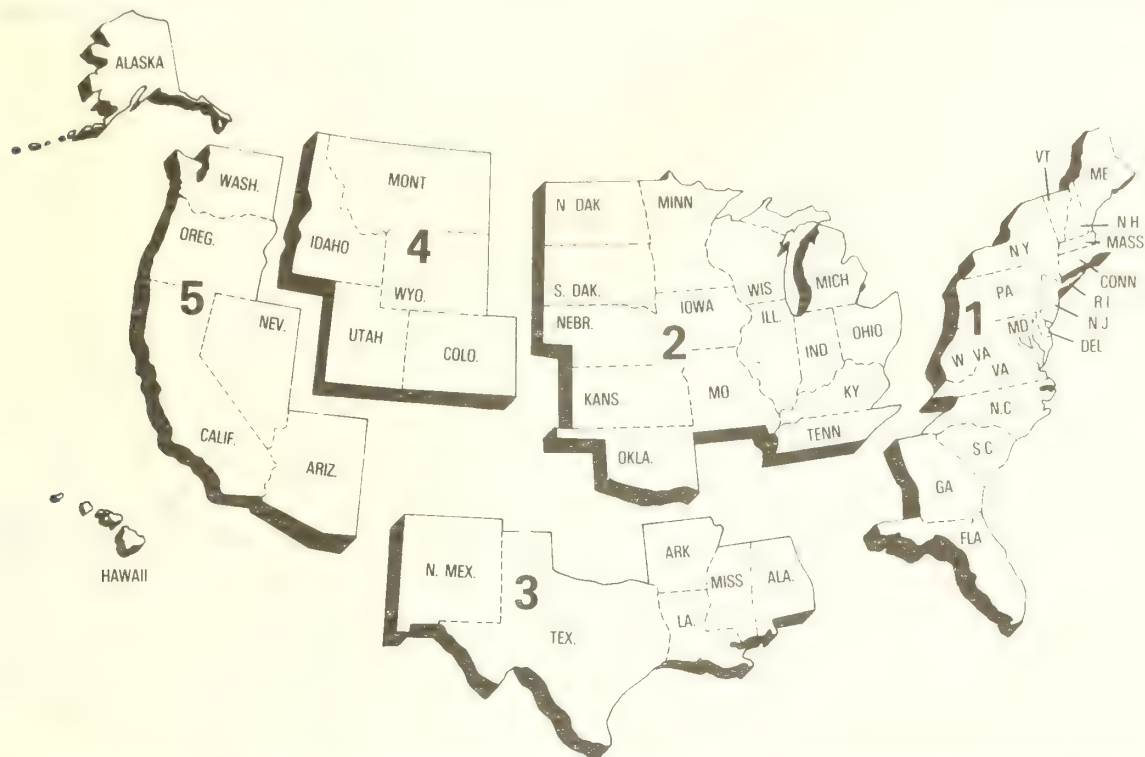
IV

**Rocky Mountain**—The States of Montana, Idaho, Wyoming, Utah, and Colorado.

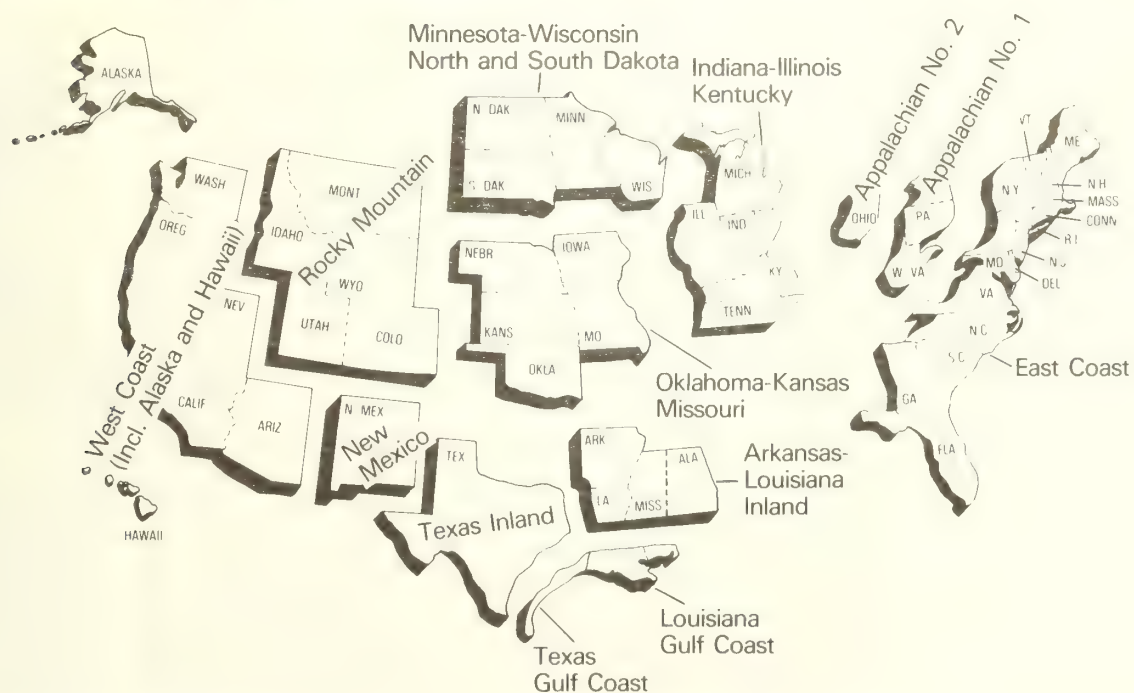
V

**West Coast**—The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

## Petroleum Administration for Defense (PAD) Districts



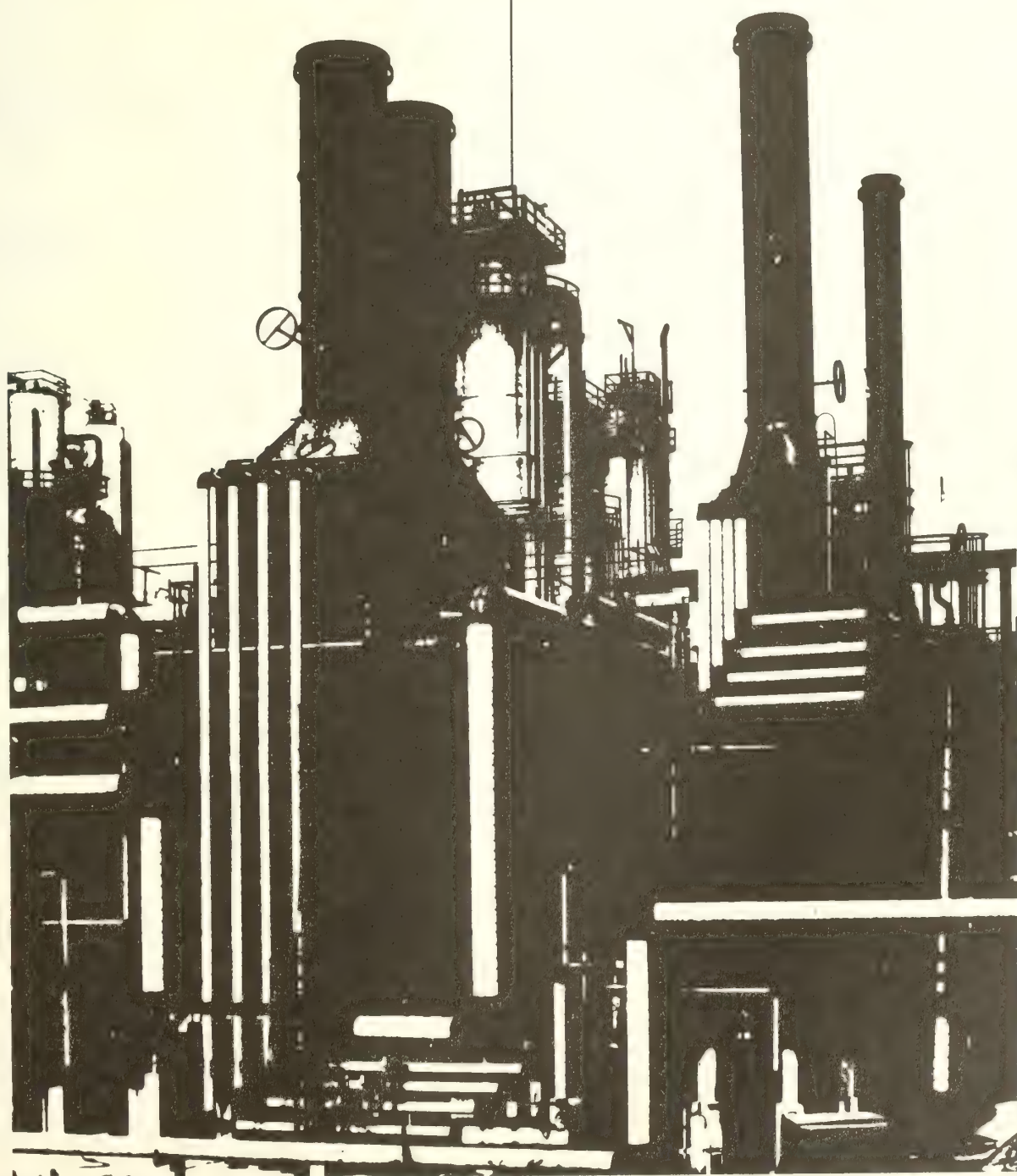
## Bureau of Mines Refining Districts



## District Map Oil and Gas Division Railroad Commission of Texas



# Explanatory Notes



## Explanatory Notes

### Note 1.1 EIA-64: Natural Gas Liquids Operations Report

#### Background

The EIA-64, "Natural Gas Liquids Operations Report" evolved from a survey designed and conducted by the United States Geological Survey beginning in 1911. This form collects data on the production and storage of natural gas plant liquids at natural gas processing plants and fractionators.

#### Description of Survey

##### Universe

The universe includes all operators of facilities designed to: (1) extract liquid hydrocarbons from natural gas streams (natural gas processing plants); (2) separate a combined products liquid hydrocarbon stream into its component products, i.e. propane, butane, natural gasoline, etc. (fractionators); or (3) store the liquid hydrocarbon output of plants and fractionators.

The mailing list is automated. It is maintained by matching periodically with the *LP Gas Almanac* listings (including supplements) and the *Oil and Gas Journal* Processing Plant Survey listings, and by making changes reported by the respondents.

##### Information Collected

The data are submitted monthly by facility and include all products that the company controls through possession, regardless of ownership. The main items of information collected by the EIA-64 are shown by the example of the form presented below.

##### Collection Methods

Completed reports are required to be postmarked 20 days following the last day of the report month. Follow-up telephone calls are made to nonrespondents in order to collect data before publication of the aggregated data.

##### Imputing Missing Data

Imputation is performed only for companies that submitted a report in the previous month. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. The value of shipments is adjusted to balance stock level, production, receipts, plant fuel use, and losses. In the event that the previous month's data were estimated, the respondent is contacted and requested to submit estimates, if necessary, to be followed by a resubmission of actual data.

##### Response Rates

The initial response rate averages 85 percent, with a final response averaging 98 percent as a result of telephone follow-up procedures.

##### Data Processing

Upon receipt, the reports are reviewed for identification section omissions, duplicate submissions, and identification information changes. The data are then entered and edited. The edit program includes checks for invalid data entry codes, range checks for current-month to previous-month changes (absolute and relative), arithmetic calculation errors, line balancing errors, etc. Telephone calls are made to respondents to resolve questions.

### Note 1.2 EIA-87, 88, 89 and 90: Joint Petroleum Reporting System

#### Background

The Joint Petroleum Reporting System (JPRS) comprises four surveys: the "Refinery Report" (EIA-87); the "Bulk Terminal Stocks Report" (EIA-88); the "Pipeline Products Report" (EIA-89); and the

## Natural Gas Liquids Operations Report

This Report is Mandatory Under Public Law 93-275. Failure to Comply may Result in Criminal Fines, Civil Penalties and Other Sanctions as Provided by Law.

EIA Company Identification Number

Report Date (Last Day of Reporting Month)

Zip Code of Plant Location

☐ If Resubmission, Insert X in Block

B	1	0
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Form Approved  
OMB No 1905-0109

7

Products	Product Code	Stocks Beginning of Month (a)	Receipts During Month (b)	Inputs During Month (c)	Production During Month (d)	Shipments To					Plant Fuel Use (k)	Losses (m)	Stocks End of Month (n)
						Fractionating Facility (e)	Storage Facility (f)	Refinery (g)	Chemical Plant (h)	Other (i)			
Ethane	110												
Propane	231												
Ethane Propane Mix	241												
Isobutane	233												
Normal Butane	235												
Other Butanes	236												
Butane-Propane Mix	234												
Isobentane	240												
Natural Gasoline													
14# and Less RVP	228												
Over 14# RVP	229												
Plant Condensate	210												
Unfractionated Stream	227												
Gasoline													
Finished Aviation	111												
Finished Lead	132												
Finished Unleaded	133												
Gasohol	135												
Special Naphthas	051												
Jet Fuel													
Naphtha Type	211												
Kerosene Type	213												
Kerosene	311												
Distillate Fuel Oil	412												
Other Products (Specify)													
Overage (Inputs) or Shortage (Production)	911	X	X			X	X	X	X	X			

Overage (Inputs) or  
Shortage (Production)

"Crude Oil Stocks Report" (EIA-90). This group of forms collects data on petroleum refinery operations and on storage of crude oil and petroleum products. The origins of JPRS lie in the voluntary petroleum reporting systems instituted by the Bureau of Mines (BOM) soon after it was established as a part of the Department of the Interior in May 1910.

## Description of Survey

### Universe

The respondent universe of each JPRS survey is defined as follows:

**EIA-87:** All petroleum refineries and plants producing finished motor gasoline through the mechanical blending of liquids which are operated or controlled in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Hawaiian Foreign Trade Zone, and Guam.

**EIA-88:** All bulk terminal facilities in the 50 States and the District of Columbia, Puerto Rico, and the Virgin Islands that (a) have total bulk storage capacity of 50,000 barrels or more and/or (b) receive petroleum products by tanker, barge, or pipeline regardless of ownership of the material.

**EIA-89:** All products pipeline companies that carry petroleum products (including interstate, intrastate and intracompany pipelines) in the 50 States and the District of Columbia.

**EIA-90:** Crude oil pipeline companies (gathering and trunk pipeline companies), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water (in excess of 1,000 barrels), regardless of ownership in the 50 States and the District of Columbia.

The list of respondents is kept current by checking for new respondents in the *Oil and Gas Journal* weekly magazine; newspaper articles; the Office of Resource Applications publication "Trends in Refinery Capacity & Utilization;" the Office of Refinery Operations (ERA) list of U.S. Refiners; and the annual survey EIA-177 "Capacity of Petroleum Refineries."

### Information Collected

The main items of information collected by EIA-87, are shown by the example presented below. The EIA-88 and EIA-89 collect data on petroleum product stocks. The EIA-90 collects data on crude oil stocks and crude oil used directly as fuel.

### Collection Methods

The data for the JPRS surveys are collected on a monthly basis. Completed forms are required to be postmarked by the 20th day following the report month. Telephone follow-up calls are made to nonrespondents in order to collect data before publication deadline. An automated mailing list is maintained and is used to monitor receipt of the forms.

### Imputing Missing Data

Imputation is performed only for companies that submitted a report in the previous month. For these companies, the previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. The value of shipments is adjusted to balance stock level, production receipts, and losses. In the event that previous month's data were estimated, the respondent is contacted and requested to submit estimates if necessary, to be followed by a resubmission of actual data.

### Response Rates

As of the filing deadline, the response rate of the JPRS respondents is over 90 percent. All companies that have not responded are contacted by telephone. Although data are taken by telephone to expedite processing, a certified submission is still required. Thirty calendar days after the report month, data for companies that still fail to file the form are estimated based on prior month's data. Names of companies that fail to file for two consecutive months are forwarded to DOE for further noncompliance action. Final response rate is 100 percent.

Report Type **B 0 1** EIA Company Identification No.

Report Period

Yr. Mo.

**SECTION 6. REFINERY STOCKS, RECEIPTS, INPUTS, PRODUCTION, SHIPMENTS AND REFINERY FUEL USE AND LOSSES**  
(Thousands of Barrels of 42 Gallons)

ITEM DESCRIPTION	PROD- UCT CODE	STOCKS	RECEIPTS	PRODUCTION	SHIPMENTS	REFINERY FUEL USE	LOSSES
		MONTHLY A	MONTHLY B	MONTHLY C	MONTHLY D	MONTHLY E	MONTHLY F
Crude oil (incl. lease condensate) Total (sum of codes 010 and 020)	050				X		
Domestic (incl. Alaskan)	010	X		X	X	X	X
Foreign	020	X		X	X	X	X
Alaskan	011	X		X	X	X	X
Products of natural gas (rock) plants	110				X		
Ethane					X		
Propane	231				X		
Ethane-propane mixtures	241				X		
Isobutane	233				X		
Normal butane	235				X		
Other butanes	236				X		
Butane-propane mixtures	234				X		
Natural gasoline and isopentane	220				X		
Plant condensate	210				X		
Unfractionated stream	227				X		
Other hydrocarbons and hydrogen	090				X		
Alcohol	091				X		
Unfinished oils	812						
Gasoline							
Finished leaded, motor	132						
Finished unleaded, motor	133						
Blending components, motor	134						
Gasohol	135						
Finished aviation	111						
Blending components aviation	112						
Special naphthas (solvents)	051						
Jet fuel							
Naphtha-type	211						
Kerosene-type	213						
Kerosene (incl. range oil)	311						
Distillate fuel oil - Less No. 4	412						
No. 4 fuel oil	414						
Residual fuel oil	511						
Lubricating oils							
Bright stock	853						
Neutral	855						
Other	859						
Asphalt	900						
Wax							
Microcrystalline	061						
Crystalline-fully refined	071						
Crystalline-other	081						
Petroleum coke							
Marketable	021						
Catalyst	022						
Road oil	031						
Still gas							
Petrochemical feedstock use	042						
Other use	044						
Ethane and/or ethylene							
Petrochemical feedstock use	612						
Other use	652						
Propane and/or propylene							
Petrochemical feedstock use	613						
Other use	653						
Butane and/or butylene							
Petrochemical feedstock use	614						
Other use	654						
Butane-propane mixtures							
Petrochemical feedstock use	616						
Other use	656						
Isobutane petrochemical feedstock use	615						
Naphtha - less than 400° end-point							
Petrochemical feedstock use	822						
Other oils - over 400° end-point							
Petrochemical feedstock use	824						
Other finished products							
Non-fuel use	097						
Fuel Use	098						
Overage (Inputs) or shortage (production)	911	X	X		X	X	X
TOTAL	999	X	X		X	X	X

## **Note 1.3 EIA-161, 162, 163, 164 and 165: Weekly Petroleum Reporting System**

### **Background**

The Weekly Petroleum Reporting System (WPRS) comprises five surveys: the "Refinery Report" (EIA-161); the "Bulk Terminal Stocks Report" (EIA-162); the "Pipeline Product Stock Report" (EIA-163); the "Crude Oil Stocks Report" (EIA-164); and the "Imports Report" (EIA-165).

The EIA weekly reporting system was designed to collect data similar to those collected under the monthly Joint Petroleum Reporting System (JPRS) (See Note 1.2). In the WPRS, selected petroleum companies report weekly data to EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On the Forms EIA-161 through EIA-164, companies report data on a custody basis. On the Form EIA-165, the importer of record reports each shipment entering the United States. Current weekly data and the most recent monthly data from the JPRS are used to estimate the published weekly totals.

### **Description of Survey**

#### **Universe**

The sample of companies that report weekly in the WPRS was selected from the universe of companies that report monthly in either the JPRS system or the ERA-60 system (for imports). All sampled companies report data only for facilities in the 50 States and the District of Columbia.

The sampling frame for each weekly survey is defined as follows:

**EIA-161:** Uses the EIA-87 universe, which includes all petroleum refineries in the United States and its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and bulk terminals that blend motor gasoline.

**EIA-162:** Uses the EIA-88 universe, which includes all bulk terminal facilities in the United States and its territories that have total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline.

**EIA-163:** Based on the EIA-89 universe, which includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that only transport natural gas liquids are not included in the EIA-163 frame. Only those pipeline companies which transport products covered in the weekly survey are included.

**EIA-164:** Uses the EIA-90 universe, which consists of all trunk pipeline companies in the United States and its territories which transport crude oil, all refining companies, all crude oil producers, all terminal operators, and all storers of 1,000 barrels or more of crude oil.

**EIA-165:** Uses the ERA-60 universe, which includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico.

#### **Sampling**

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for the previous time period.

#### **Collection Methods**

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. All canvassed firms and terminal operating companies must file by 5:00 p.m. on the Monday following the close of the report period, 7 a.m. Friday. During the processing week, company corrections of the prior week's data are also entered.

### Formula and Calculations

After the company reports have been checked and entered into the weekly data base, ratio estimates of the weekly totals are calculated from the reported data.

First, the current week's data for a given product reported by companies in that region are summed. (Call this weekly sum,  $W_s$ ) Next, the most recent month's data for the product reported by those same companies are summed. (Call this monthly sum,  $M_s$ ). Finally, let  $M_t$  be the sum of the most recent month's data for the product as reported by *all* companies. Then, the current week's ratio estimate for that product for all companies is given by.

$$W_t = \frac{M_t}{M_s} \cdot W_s$$

This procedure is used directly to estimate total weekly inputs to refineries and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Under such conditions, the ratio method is known to result in large errors. Hence, a number of other procedures for estimating weekly imports were considered. The average ratio method was selected for estimating imports because it produces estimates that were close to benchmark values computed from monthly data. Estimates are obtained using the ratio method, but with each company in turn omitted from the sample. These estimates are then averaged to obtain the average ratio estimate.

### Imputing Missing Data

The ratio method of estimation automatically imputes for nonresponse. Data from companies that do not respond are excluded from both the weekly and the monthly totals for the sampled companies.

### Response Rates

The response rate as of the day after the filing deadline is about 80 percent for the EIA-161; 75 percent for the EIA-162; 95 percent for the EIA-163; 80 percent for the EIA-164; and greater than 95 percent for the EIA-165. However, more forms are received the next day, bringing the final response rates up. Late respondents are contacted by telephone. Nearly all of the major companies report on time. The nonresponse rate for the published estimates is usually between 2 percent and 5 percent.

## Note 1.4 EIA-170: Tanker and Barge Shipments of Crude Oil and Petroleum Products Between Districts

### Background

The EIA-170 survey collects data for calculation of monthly petroleum supply and disposition figures on U.S. and PAD District levels.

### Instrument and Design

This form is designed to collect data on total movements by tanker and barge of crude oil and petroleum products between PAD Districts or between PAD Districts and the Panama Canal, by shipping State and receiving State.

### Universe

The respondent universe of the EIA-170 consists of all known companies and plants that have custody of crude oil and petroleum products transported by tanker and barge between PAD Districts or between PAD Districts and the Panama Canal. There are currently about 60 respondents.

### **Collection Methods**

Survey data are collected by mail every month. The filing deadline is the 20th calendar day of the month following the report period. The response rate as of the filing deadline is about 98 percent. Late respondents are contacted by telephone. All responses are processed each month before release of the data for publication.

## **Note 1.5 ERA-60: Reports of Oil Imports into the United States and Puerto Rico**

### **Background**

The "Report of Oil Imports into the United States and Puerto Rico" (ERA-60) survey was designed by the Economic Regulatory Administration (ERA) of the Department of Energy to collect data on port of entry, country of origin, destination, and quantity of imported crude oil and petroleum products, as well as sulfur content and API gravity. All licensed importers and importers of record are required to report. The "Shipments of Refined Products from Puerto Rico to the United States" (P-133-M-O) survey was designed to collect data on imports to the United States that are not covered by the ERA-60.

### **Universe**

The monthly submission of Form ERA-60 and P-133-M-O is required by all licensed importers and importers of record into the United States and Puerto Rico. The respondent universe consisted of approximately 750 firms as of June 30, 1981. The respondent universe for these surveys is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

### **Collection Methods**

The survey data are collected by mail each month. It is mandatory for each respondent to file the ERA-60/P-133-M-O by the 15th working day of the month following the reporting period. Resubmissions are received frequently and are processed when received.

### **Response Rates**

In December 1980, the survey had a response rate of 92 percent by the filing deadline. The universe was 640 at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard followup of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. Response rate is generally 98-99% by the time the data are first published. Revised publications are not generated as standard operating procedure. The ERA-60 file is never closed; resubmissions are constantly received and processed.

## **Note 1.6 Census Import (IM-145) and Export (EM-522 and EM-594) Tabulations**

The foreign trade statistics program, conducted by the Bureau of the Census, involves compilation and dissemination of a large body of data relating to the imports and exports of the United States.

### **Import Statistics**

#### **Coverage**

The import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. Customs territory (includes the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

1. Merchandise shipped in transit through the United States, when documented with Customs as an intransit movement.
2. Shipments between the United States and Puerto Rico, the Virgin Islands, Guam, American Samoa, and other U.S. possessions; shipments between any of these outlying areas; and imports into U.S. possessions from foreign countries.
3. U.S. merchandise returned by U.S. Armed Forces for their own use.

#### **Source of Import Information**

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501- 7505).

Imported petroleum is reported as "Imports for Consumption." Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

#### **Country and Area of Origin**

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

### **Export Statistics**

#### **Coverage**

The export statistics reflect both government and nongovernment exports of domestic and foreign merchandise from the U.S. Customs territory (includes the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

1. Shipments between the United States and Puerto Rico, the Virgin Islands, Guam, American Samoa, and other U.S. possessions; between any of these outlying areas; and shipments from U.S. Possessions to foreign countries.
2. Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
3. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

#### **Source of Export Information**

The official U.S. export statistics are compiled by the Bureau of the Census primarily from copies of Shipper's Export Declarations. Shipper's Export Declarations are required to be filed with Customs officials, except when qualified exporters have been authorized to submit data in the form of magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations directly to the Bureau of the Census.

#### **Country and Area of Destination**

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

## Note 2 Estimation

The geographic coverage of all estimates is the 50 United States and the District of Columbia, including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

### Note 2.1 Supply

The components of petroleum supply are field production, refinery production, imports, stock withdrawal or addition, crude oil used directly, and losses.

**Field Production** is the sum of crude oil (including lease condensate) production, natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation and revenue agencies. Reports of crude oil production from each of the 31 producing States are not received until several months after the other components of petroleum supply described in Explanatory Note 2.1 are available for publication. For an explanation of the crude oil estimation procedure used until the State reports are complete, see Explanatory Note 2.2.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-64, "Natural Gas Liquids Operation Report." Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.1.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-64, "Natural Gas Liquids Operations Report." Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.1.

**Refinery Production** of LRGs, ethane, and finished petroleum products is reported monthly on survey Form EIA-87, "Refinery Report." Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Refinery production is also reported weekly on survey Form EIA-161, "Refinery Report." See Explanatory Notes 1.2 and 1.3 for survey descriptions and other detail. It should also be noted that refineries do not report production of crude oil, natural gasoline, isopentane, unfractionated stream, plant condensate, or other hydrocarbons and alcohol.

**Imports** of crude oil and petroleum products are reported monthly on Form ERA-60, "Report of Oil Imports into the United States and Puerto Rico," and Form P-133-M-O, "Shipments of Refined Products (including unfinished oils) from Puerto Rico to the United States." In addition, the Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501 and 7505. The most prominent difference between the EIA and Census systems appears in imports of liquefied petroleum gases (LPG), where Census data show a much higher level of imports than Energy Information Administration data. This occurs because the ERA-60 respondent frame was built by monitoring importers of licensed products and because LPGs are not licensed products. Therefore, respondents that only import LPGs have not been identified, and do not report these imports to the Department of Energy. Since these importers are required to file form 7501 with the U.S. Customs Service, EIA obtains data on imports of LPGs from Census Tabulation IM-145. Additional data taken from the IM-145 are relatively small quantities of naphtha and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade and for military offshore use. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the ERA-60 reporting system.

Imports are also reported weekly on survey Form EIA-165, "Imports Report." See Explanatory Notes 1.3, 1.5, and 1.6 for survey descriptions and other detail.

**Stock Withdrawal (+) or Addition (-)** is calculated by subtracting stocks at the end of the month from stocks at the beginning of the month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks and an increase in petroleum supplies distributed for domestic consumption. A negative result (-) would represent a buildup of stocks and reduce petroleum supplies distributed for domestic consumption. For survey forms used to make stock withdrawal or addition calculations see Explanatory Note 2.4.

**Unaccounted-for Crude Oil** is a balancing item that represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production, imports and stock withdrawal or addition, less crude used directly and losses. Crude oil disposition is the sum of exports and refinery input.

Unaccounted-for crude oil is calculated by subtracting crude oil supplies from crude oil disposition. A negative result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used. This calculation is performed for crude oil to ensure that product supplied for crude oil is always zero.

**Crude Oil Used Directly and Losses** is the sum of crude oil losses at refineries, crude oil burned at refineries, and crude oil burned on leases. Crude oil losses and consumption at refineries are reported on Form EIA-87, "Refinery Report." Crude oil burned on leases is reported on Form EIA-90, "Crude Oil Stocks Report." Crude oil burned on leases is divided into two categories: crude burned as residual fuel oil and crude burned as distillate fuel oil. Crude burned on leases appears as a negative supply to crude oil (a reduction in crude oil supplies) and as a positive supply to residual and distillate fuel oil (an increase to these supplies).

## Note 2.2: Domestic Crude Oil Production

Data for the Crude Oil Production System (COPS) are reported to the Department of Energy by each of the individual State conservation agencies, which collect crude oil production values for tax purposes. In addition, the U.S. Geological Survey reports the volume of crude oil that is produced offshore in Federally-owned waters. With the exception of six State conservation agencies, all of these reports are received monthly. After each calendar year, these monthly numbers are updated using the annual reports from the State conservation agencies and the U.S. Geological Survey. The six States that do not report monthly values are Indiana, New York, Ohio, Pennsylvania, West Virginia, and Wyoming. Monthly values are estimated for these States using the individual linear trends of their historical annual crude oil production values.

There is a time lag of approximately 3 to 4 months between the end of the reporting month and the time when the actual values are available for this publication. In order to provide more timely crude oil production estimates, the Department of Energy has established a series of statistical models that forecast the volume of crude oil production based on the historical production patterns. The models use Auto Regressive Integrated Moving Average (ARIMA) to analyze series of monthly crude oil production values collected over several years.

In order to provide detailed crude oil production information on both the PAD District level and for the major producing States, the total United States crude oil production volume was separated into nine distinct groupings. The nine different time series are the monthly reported crude oil production volumes for: (1) all the States in PAD District 1; (2) all the states in PAD District 2; (3) Texas; (4) Louisiana; (5) the States in PAD District 3 excluding Texas and Louisiana; (6) all the States in PAD District 4; (7) Alaska; (8) California; and (9) the States in PAD District 5 excluding Alaska and California. Monthly data collected beginning in January 1973 are used for each of these time series.

A separate ARIMA model is identified for each time series. New model parameters are estimated monthly for each of these nine updated time series. Then, these ARIMA models are used to forecast crude oil production volumes for the month of interest. These values are then aggregated into PAD District and national totals. The forecasts made during 1981 had an average error of less than 0.6 percent compared to the monthly crude oil production volumes eventually reported by the States.

## Note 2.3 Disposition

The components of petroleum disposition are refinery input, exports, and products supplied for domestic consumption.

**Refinery Inputs** of crude oil, NGPL and other liquids are reported monthly on survey Form EIA-87, "Refinery Report." Published inputs of unfinished oils, and motor and aviation gasoline blending components, equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production. Refinery inputs are also reported weekly on survey Form EIA-161, "Refinery Report." See Explanatory Notes 1.2 and 1.3 for survey description and other details.

**Exports** of crude oil and petroleum products are compiled from Census Bureau tabulations EM522 and EM594. Exports include crude oil shipments to Puerto Rico, the Virgin Islands, and the Hawaiian Foreign Trade Zone, which are obtained from refinery receipts reported on Form EIA-87.

**Product supplied** for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, plus crude oil used directly and losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply. Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative when total disposition of that product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported, (2) misreporting or delayed reporting of data, and (3) for calculations on a PAD District basis, incomplete coverage of interdistrict movements data compiled to calculate net receipts.

## Note 2.4 Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-87, "Refinery Report," and Form EIA-90, "Crude Oil Stocks Report." Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in transit is also included. Stocks of crude oil are also reported weekly on Form 161, "Refinery Report," and Form EIA-164, "Crude Oil Stocks Report." Primary stocks of petroleum products are summed from data reported on the Form EIA-64, "Natural Gas Liquids Operations Report," Form EIA-87, "Refinery Report," Form EIA-88, "Bulk Terminal Stocks Report," and Form EIA-89, "Pipeline Products Stocks Report." Primary stocks of petroleum products do not include secondary stocks held by dealers and jobbers, or stocks held by consumers. Petroleum product stocks are also reported weekly on Form EIA-161, "Refinery Report," Form EIA-162, "Bulk Terminal Stocks Report," and Form EIA-163, "Pipeline Products Stocks Report." For survey descriptions and other details see Explanatory Notes 1.1, 1.2, and 1.3.

## Note 2.5 Average Stock Levels

The graphs displaying monthly stock levels of petroleum products, crude oil, motor gasoline, distillate fuel oil, residual fuel oil, liquified petroleum gases and ethane, and other products provide the user with recent data as well as a summary of data from the most recent 3 year period from January through December or from July through June. This summary takes the form of an "average range" that includes seasonal variation determined from a longer time period. The average range represents the historical pattern; it is not a forecast.

These curves are updated every 6 months effective January 1 or July 1 by basing the "average ranges" on a more recent time period. At that time, each 3-year data series will be adjusted by dropping the first 6 months and including the most recent 6 months.

For each data series, the monthly seasonal factors were estimated by means of a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors were assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported stock levels). The intent of deseasonalization is to remove only seasonal variation from the data. Thus, a deseasonalized series would contain the same trends and irregularities as the original data. For crude oil stocks, the derived seasonal factors were very small relative to crude oil stock levels. Therefore, the seasonal factors for crude oil stock levels were set to zero. The seasonal factors for total petroleum (crude and products), distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane, and other products were derived using monthly data from 1974-1980. For motor gasoline, the seasonal factors were based on monthly data from 1975, 1976, 1978, 1979 and 1980. In 1977, there was virtually no seasonal behavior in motor gasoline stocks. Monthly stock levels stayed at the same high level for the entire year. In addition, the seasonal patterns in 1973 and 1974 appeared to be different from those in recent years. It was therefore assumed that the seasonal patterns in 1973, 1974, and 1977 were not representative of the recent past, and these years were not used in the determination of seasonal patterns for motor gasoline stocks. Because of these differences in the year-to-year seasonal fluctuation of motor gasoline, the evidence for the illustrated seasonal patterns for total petroleum (crude and products), crude oil, distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane, and other products is stronger than is the evidence for the illustrated seasonal patterns for motor gasoline.

In some cases, these seasonal patterns do not show a smooth transition from month to month. For example, the June factor for residual fuel oil is slightly less than the May and July values, making a bump in the curve. As there is little difference in the magnitude of these seasonal factors, it is possible that this variation is due to the small number of observations (7 years) and the data variability.

After seasonal factors are derived, the most recent 3 year period (from January through December or from July through June) is deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard error of the deseasonalized 36 months is calculated adjusting for extreme data points. The width of the "average range" is twice this standard error.

The upper curve of the "average range" is defined as the average plus the seasonal factors plus the standard error. The lower curve is defined as the average plus the seasonal factors minus the standard error.

## **Note 2.6 Movements**

Movements of crude oil between PAD Districts are reported on Form EIA-170, "Tanker and Barge Report." Petroleum product movements are reported on Forms EIA-170 and EIA-89, "Pipeline Products Report." Net receipts are calculated by summing total movements into and total movements from each PAD District by pipelines, tankers, and barges, and subtracting for the difference. Movements of crude oil by pipeline are not reported. For survey descriptions and other detail, see Explanatory Notes 1.2 and 1.4.

## **Note 2.7 Preliminary Monthly Statistics**

Data from the Weekly Petroleum Reporting System (Forms EIA-161, 162, 163, 164 and 165) are used to estimate the most recent monthly values for the historical statistics. Since some of the weekly reporting periods overlap 2 adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To calculate monthly estimates of crude oil and petroleum product imports, crude oil input to refineries, and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel and residual fuel) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the 2 weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of earlier of the 2 weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 2.2.

### Note 3 Accuracy of Petroleum Supply Data

Early in 1981, the Energy Information Administration completed an assessment of the accuracy of principal petroleum supply data series. <sup>1</sup>This assessment concentrated on two methods of analysis:

- Comparisons between EIA's final annual estimates published in the *Petroleum Statement Annual (PSA)* and annual estimates from independent sources.

- Comparisons between EIA's final monthly estimates published in the *PSA* and EIA's earlier estimates published in the *Monthly Petroleum Statistics Report* and the *Petroleum Statement, Monthly* (predecessor of the *Monthly Petroleum Statement*).

Selected excerpts from these comparisons are presented below.

#### Comparisons of Annual Estimates

All of the systems that provide data for the *Petroleum Supply Monthly*, except for the weekly systems, try to collect data from the entire universe of their potential respondents. They do not sample, and have no sampling errors. Inaccuracies in the data still occur because of problems such as incomplete lists of respondents, errors in the responses, and conceptual errors in the design of the data systems. Such inaccuracies are hard to identify and even harder to quantify. Some understanding of the overall accuracy of the estimates can be achieved by comparing estimates derived from independent sources of data, as shown in the following tables. Close agreements among annual estimates from several independent sources support the conclusion that the estimates are accurate, and accuracy in the annual estimates implies accuracy in the monthly estimates that comprise the annual estimates.

#### Crude Oil Production

Comparisons among independent estimates of annual crude oil and lease condensate production lead to the conclusion that the *PSA* estimates are probably accurate to within 1 percent.

#### Crude Oil Imports

Comparisons among independent estimates of annual crude oil imports lead to the conclusion that the *PSA* estimates are probably accurate to within 1 percent. This conclusion is supported by a study of EIA and Customs/Census import data performed for EIA.<sup>2</sup>

#### Motor Gasoline Supplied

Comparisons among independent estimates of the annual volume of motor gasoline supplied for domestic use show that differences in the estimates grew between 1977 and 1979. By 1979, the EIA estimate of sales by refiners and the Environmental Protection Agency's estimate of production had grown about 5-7 percent larger than the comparable *PSA*, Lundberg, and American Petroleum Institute (API) estimates. Research conducted by EIA in 1979 and 1980<sup>3</sup> confirmed that the lower

<sup>1</sup>*An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292, June 1981.

<sup>2</sup>Maxima Corporation, *Petroleum Imports Reporting Systems, Preliminary Draft*, (Silver Spring, Maryland: February 1980). Prepared for the Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, Washington, D.C.

<sup>3</sup>Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *An Evaluation of Published EIA Gasoline Supply Estimates* (Washington, D.C.: April 1980).

estimates were inaccurate, and identified changes in the petroleum industry that had an adverse effect on the *PSA* estimate. During 1980, EIA developed and tested improved procedures for collecting petroleum supply data, and implemented them in January 1981. (See Explanatory Note 4.)

### Distillate Fuel Oil Supplied

Comparisons among independent estimates of the annual volume of distillate fuel oil supplied for domestic use lead to the conclusion that the *PSA* estimates are probably accurate to within 1 to 2 percent.

### Residual Fuel Oil Supplied

Comparisons among independent estimates of the annual volume of residual fuel oil supplied for domestic use seem to show sizable and consistent differences between the EIA estimates of sales by refiners and the *PSA* and API estimates. When imports of residual fuel oil by nonrefiners are added to the refiner sales, however, the difference between refiner sales and the *PSA* estimates are narrowed to within 1 percent. The comparisons therefore lead to the conclusion that the *PSA* estimates are probably accurate to within 1 to 2 percent.

### Comparison of Estimates of the Volume of Crude Oil and Lease Condensate Production, 1977-1979

	Estimated Volume of Production in Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Comparative Estimate as a Percent of the <i>PSA</i> Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from Petroleum Statement Annual <sup>b</sup>	3,121	3,178	3,009	///	///	///
Comparative Estimates						
American Petroleum Institute Estimate from API Monthly Statistical Report <sup>c</sup>	3,130	3,214	3,021	100.3%	101.1%	100.4%
Census Estimate from the Annual Survey of Oil and Gas <sup>d</sup>	—	3,148	3,016	—	99.1%	100.2%
Oil and Gas Journal Estimates <sup>e</sup> of Total Production derived from Monthly Data	3,168	3,165	3,005	101.5%	99.6%	99.9%
EIA Estimate from Annual Survey of Oil and Gas Reserves (EIA-23) <sup>f</sup>	3,102	3,144	3,001	99.4%	98.9%	99.7%

/// = Not applicable

— = Not available

<sup>a</sup>Volumes are rounded to the nearest million barrels.

<sup>b</sup>From Table 6 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979.

<sup>c</sup>From issues of the American Petroleum Institute's *Monthly Statistical Report*. The annual values were obtained by summing the monthly values for each of the twelve-month periods.

<sup>d</sup>From Table 1, p.2 of the Bureau of Census' *Annual Survey of Oil and Gas*, 1978.

<sup>e</sup>From issues of the *Oil and Gas Journal*. Monthly estimates are in thousands of barrels per day. They are converted to millions of barrels by dividing by 1,000 and multiplying by the number of days in the reporting period.

<sup>f</sup>From EIA's *U.S. Crude Oil and Natural Gas Reserves 1979 Annual Report* (Table 19, p. 33), *1978 Annual Report* (Table 16, p. 20), and *1977 Annual Report* (Table 22, p.36).

Geographic coverage: the 50 United States and District of Columbia with adjacent areas of the Outer Continental shelf.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

# Comparison of Estimates of the Volume of Crude Oil Imports, 1977-1979

	Volume of Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Comparative Estimates as a Percent of the Primary Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate of Receipts at Ports of Entry (ERA-60) from <i>Petroleum Statement, Annual</i> <sup>b</sup>	2,380	2,320	2,414	///	///	///
<u>Comparative Estimates</u>						
American Petroleum Institute Estimate of Receipts as Reported by Refiners <sup>c</sup>	2,346	2,323	2,360	98.6%	100.1%	97.8%
Customs/Census Estimate of Receipts at Ports of Entry (Customs Forms 7501 and 7502) <sup>d</sup>	2,415	2,338	2,431	101.5%	100.8%	100.7%
EIA Estimate of Inputs of Foreign Crude at Refineries (ETA-87) <sup>e</sup>	2,364	2,334	2,431	99.3%	100.6%	100.7%

/// = Not applicable

<sup>a</sup>Volumes are rounded to the nearest million barrels.

<sup>b</sup>From Table 1 in EIA's *Petroleum Statement Annual* 1977, 1978, 1979. This table also includes imports for the Strategic Petroleum Reserve (SPR) which were 7.5 million in 1977, 58.8 million in 1978, and 24.4 million in 1979.

<sup>c</sup>Estimate equals the sum of the annual estimate of imports derived from API's *Monthly Statistics Report* (which excludes imports for SPR), and the EIA estimates for imports for the SPR which are listed in footnote b above. The annual estimates from API data are equal to the sum of the API monthly estimates weighted by the number of days in each month.

<sup>d</sup>Data on imports to Puerto Rico which are included in the source for these estimates have been excluded from these estimates in keeping with the geographic coverage of the table. Data are from computer printouts of the Bureau of Census Report IM-245-X dated April 3, 1980 (1977 and 1978 data) and December 19, 1980 (1979 data).

<sup>e</sup>Estimate equals refinery inputs of foreign crude plus (minus) stock increases (decreases) of foreign crude. The data for the computation are published in EIA's *Petroleum Statement, Annuals*. The stock changes (all increases) are derived from data on stocks of crude oil at refineries, bulk terminals, and pipelines as reported on Form EIA-90, plus the increase in the SPR. This estimate excludes crude oil imported and not used as refinery input.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

**Comparison of Estimates of the Volume of Motor Gasoline Supplied for Domestic Use, 1977-1979**

	Volume in Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Volume Supplied as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement, Annual</i> <sup>b</sup>	2,573	2,711	2,625	///	///	///
<b>Comparative Estimates</b>						
EIA Estimate of Sales by Refiners (P-306) <sup>c</sup>	2,708	2,792	2,671	105.2%	103.0%	101.8%
Environmental Protection Agency Estimate derived from Production Data <sup>d</sup>	2,766	2,851	2,706	107.5%	105.2%	103.1%
Lundberg Surveys, Inc. Estimate of U.S. Motor Gasoline Sales <sup>e</sup>	2,631	2,746	2,656	102.3%	101.3%	101.2%
American Petroleum Institute Estimate of Deliveries <sup>f</sup>	2,579	2,697	2,612	100.2%	99.5%	99.5%

/// = Not applicable

<sup>a</sup>Volumes are rounded to the nearest million 42-U.S. gallon barrels.

<sup>b</sup>Derived from Table 2 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979.

<sup>c</sup>Derived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products* 1977, 1978, 1979.

<sup>d</sup>The estimate shown is derived by substituting EIA Domestic Production values with values of domestic production tabulated from the Environmental Protection Agency Bq. Form 3520-2, "Lead Additive Report for Refineries." The EPA production estimates are 2,694 million barrels in 1977, 2,757 in 1978, and 2,648 in 1979 as compared from a summary sheet provided by Mr. Bob Summerhayes of EPA.

<sup>e</sup>From the mid-June issues of the "National Petroleum News," 1979 and 1980.

<sup>f</sup>API publishes monthly estimates in thousands of barrels per month of the volume of motor gasoline delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of motor gasoline multiplied by the number of days per month.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

**Comparison of Estimates of the Volume of Distillate Fuel Oil (Including Kerosene) Supplied for Domestic Use, 1977-1979**

	Volume in Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Volume Supplied as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement Annual</i> <sup>b</sup>	1,269	1,307	1,275	///	///	///
<b>Comparative Estimates</b>						
EIA Estimate of Sales by Refiners (P-306) <sup>c</sup>	1,282	1,275	1,242	101.0%	97.6%	97.4%
American Petroleum Institute Estimate of Deliveries <sup>d</sup>	1,291	1,300	1,277	101.7%	99.5%	100.2%

/// = Not applicable

<sup>a</sup>Volumes are rounded to the nearest million 42-U.S. gallon barrels.

<sup>b</sup>Derived from Table 2 in EIA's "Petroleum Statement Annual", 1977, 1978, 1979.

<sup>c</sup>Derived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products*, 1977, 1978, 1979.

<sup>d</sup>API publishes monthly estimates in thousands of barrels per month of the volume of distillate and kerosene delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of distillate and kerosene multiplied by the number of days per month.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

Comparison of Estimates of the Volume of Residual Fuel Oil Supplied for Domestic Use, 1977-1979.

	Volume in Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Volume Supplied as a Percent of the PSA Estimates		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement, Annual</i> <sup>b</sup>	1,024	1,095	1,109	///	///	///
<u>Comparative Estimates</u>						
EIA Estimate of Sales by Refiners (P-306) <sup>c</sup>	796	832	847	80.8%	79.6%	80.1%
American Petroleum Institute Estimate of Deliveries <sup>d</sup>	1,044	1,101	1,114	102.0%	100.5%	100.4%

/// = Not Applicable

<sup>a</sup>Volumes are rounded to the nearest million 42-U.S. gallon barrels.

<sup>b</sup>Derived From Table 2 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979. Refinery fuel use, subtracted from the figures in the source referenced below, has been reinstated in these estimates.

<sup>c</sup>Derived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products*, 1977, 1978, 1979.

<sup>d</sup>API publishes monthly estimates in thousands of barrels per month of the volume of residual fuel oil delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of residual fuel oil multiplied by the number of days per month.

Geographic Coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

## Comparisons of Monthly Estimates Over Time

Inaccuracies in petroleum data resulting from incomplete or delayed reports from respondents and from data processing errors are usually eliminated from the final PSA estimates. Such inaccuracies can still have important effects on the monthly estimates published in the *Petroleum Supply Monthly* and its predecessors. The following tables compare the initial monthly estimates published in the *Monthly Petroleum Statistics Report* and the *Petroleum Statement, Monthly* with the final monthly estimates published in the PSA. During 1977-1979, the *Monthly Petroleum Statistics Report* was published about 60 days after the end of the reporting month, and the *Petroleum Statement, Monthly* was published about 120-150 days after the end of the reporting month. The tables show that, both in terms of bias and in terms of standard deviation, the later estimates are consistently more accurate than the earlier estimates. In spite of this, the earlier estimates may have been more valuable to users of energy information because of the large difference in timeliness.

For purposes of comparison, the *Petroleum Supply Monthly* is scheduled to be published on about the same time lag as the *Monthly Petroleum Statistics Report*. Caution should be exercised, however, in drawing conclusions from this similarity. The *Petroleum Supply Monthly* uses improved data processing procedures developed and successfully implemented during 1981. In addition, since 1979, EIA has greatly improved the accuracy of its 60-day crude oil production estimates and is making progress in improving the accuracy of its 60-day import estimates.

**Initial Monthly Estimates of Production, Stocks, and Imports of Crude Oil As A Percent of EIA's Final Published Estimates <sup>a</sup>  
January 1977 - December 1979**

	Production During Month		Primary Stocks At End of Month		Imports During Month	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report<sup>b</sup></i>	# 98.7%	1.6%	# 98.3%	1.4%	# 95.4%	2.4%
EIA's Estimates from the <i>Petroleum Statement, Monthly<sup>c</sup></i>	# 99.6%	0.6%	100.0%	0.1%	# 98.4%	1.3%

**Initial Monthly Estimates of Products Supplied for Domestic Use as A Percent of EIA's Final Published Estimates <sup>a</sup>  
January 1977 - December 1979**

	Motor Gasoline		Distillate Fuel Oil		Residual Fuel Oil	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report<sup>b</sup></i>	99.9%	1.3%	99.9%	2.3%	# 97.9%	2.7%
EIA's Estimates from the <i>Petroleum Statement, Monthly<sup>c</sup></i>	100.0%	0.3%	99.7%	0.5%	99.4%	1.2%

**Initial Monthly Estimates of End-of-Month Primary Stocks As a Percent of EIA's Final Published Estimates <sup>a</sup>  
January 1977 - December 1979**

	Motor Gasoline		Distillate Fuel Oil		Residual Fuel Oil	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report<sup>b</sup></i>	99.7%	0.8%	99.7%	1.1%	100.1%	0.7%
EIA's Estimates from the <i>Petroleum Statement, Monthly<sup>c</sup></i>	99.9%	0.2%	100.0%	0.1%	100.1%	0.5%

# Represents a difference from 100% found to be statistically significant at the 95% level of confidence (n = 36).

<sup>a</sup>Final monthly estimates are from the "Petroleum Statement, Annual" for 1977, 1978 and 1979. The mean percent is calculated as follows: each preliminary estimate is first expressed as a percent of EIA's final published estimate, these are then summed and the sum is divided by the number of estimates. The standard deviation is the square root of the quantity computed by summing the squared deviation of the percents from the mean percent and then dividing by the number of percents.

<sup>b</sup>Based on 36 initial estimates appearing in issues dated January 1977 - December 1979.

<sup>c</sup>Based on 36 initial estimates appearing in issues dated January 1977 - December 1979.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

## Note 4 Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting systems.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings throughout 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

### Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. This difference increased to about 4 percent in 1979 and 5 percent in 1980. There are two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference—in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied. EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years. EIA has recently published a study of the quality of these FHWA data.<sup>1</sup>

<sup>1</sup>Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *Error Profile of the Motor Fuel Taxation Data used to Establish and Monitor State Emergency Conservation Targets* (Washington, D.C.: December, 1981).

**Finished Motor Gasoline Product Supplied on Old and New Basis  
(Thousand Barrels per Day)**

	1979				1980			
	EIA Reported	API Recast	EIA Recast	FHWA <sup>1</sup>	EIA Reported	API Recast	EIA Recast	FHWA <sup>1</sup>
Jan	6,830	7,230	7,084- 7,246	6,984	6,323	6,789	6,630- 6,791	6,672
Feb	7,254	7,496	7,389- 7,568	7,538	6,596	6,983	6,831- 7,003	6,830
Mar	7,229	7,414	7,301- 7,463	7,316	6,406	6,753	6,607- 6,768	6,713
Apr	7,055	7,300	7,187- 7,353	7,375	6,800	7,014	6,886- 7,052	6,981
May	7,213	7,429	7,313- 7,475	7,428	6,729	6,954	6,823- 6,984	7,044
Jun	7,191	7,483	7,350- 7,516	7,441	6,657	6,966	6,824- 6,991	7,049
Jul	6,902	7,241	7,105- 7,266	7,299	6,743	6,973	6,960	7,132
Aug	7,330	7,546	7,426- 7,588	7,619	6,648	6,841	6,828	7,090
Sep	6,881	7,122	7,016- 7,262	7,232	6,510	6,692	6,962	6,685
Nov	6,791	7,068	6,956- 7,122	7,142	6,234	6,507	6,516	6,951
Dec	6,730	7,106	6,966- 7,127	7,064	6,632	6,948	6,936	6,993
<b>Average</b>	7,034	7,302	7,183- 7,347	7,309	6,579	6,882	6,806- 6,889	6,925

<sup>1</sup>FHWA gasoline statistics published in their 1979 Table MF-33G, 08-06-80, contain aviation gasoline as well as motor gasoline. Only motor gasoline data are included in published 1980 data. Consequently, the 1979 data shown above were reduced by subtracting aviation gasoline product supplied quantities as published by EIA in the 1979 *Petroleum Statement Annual*. The 1980 FHWA data published in their 1980 Table MF-33GA, August 1981, did not require this adjustment.

### Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oil produced by a refinery is shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981 this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1980 as published (adjusted) and on the same basis as 1981 statistics are now being completed (unadjusted) to permit comparison between 1980 and 1981 data series. Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

**Adjusted and Unadjusted Refinery Production, and Unadjusted Product Supplied of Distillate and Residual Fuel Oils, by Month for 1979 and 1980 (Thousand Barrels Per Day)**

**1979**

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,043	3,108	65	4,646	1,912	1,946	34	3,594
Feb.	2,888	2,945	57	4,869	1,792	1,822	30	3,625
Mar.	3,019	3,026	7	3,671	1,719	1,723	4	3,243
Apr.	2,945	2,978	32	3,048	1,639	1,656	17	2,524
May	3,066	3,093	27	3,025	1,586	1,600	14	2,517
Jun.	3,153	3,187	35	2,743	1,548	1,566	18	2,601
Jul.	3,305	3,344	38	2,601	1,575	1,594	20	2,471
Aug.	3,321	3,359	38	2,799	1,584	1,603	20	2,570
Sep.	3,354	3,306	-48	2,599	1,627	1,602	-25	2,584
Oct.	3,251	3,217	-34	3,085	1,629	1,612	-17	2,523
Nov.	3,239	3,200	-39	3,208	1,736	1,716	-20	2,795
Dec.	3,221	3,238	17	3,725	1,894	1,903	9	3,022
Average	3,152	3,169	16	3,327	1,687	1,695	8	2,834

**1980**

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,013	3,093	80	3,794	1,771	1,812	41	3,108
Feb.	2,766	2,888	122	3,834	1,773	1,836	63	3,168
Mar.	2,557	2,690	133	3,312	1,584	1,652	68	2,726
Apr.	2,460	2,554	94	2,729	1,595	1,643	48	2,492
May	2,474	2,610	136	2,538	1,509	1,579	70	2,305
Jun.	2,646	2,721	75	2,392	1,575	1,613	38	2,359
Jul.	2,689	2,783	94	2,343	1,480	1,528	48	2,339
Aug.	2,461	2,582	121	2,258	1,444	1,506	62	2,348
Sep.	2,686	2,726	40	2,627	1,495	1,516	21	2,380
Oct.	2,589	2,650	61	2,981	1,512	1,543	31	2,258
Nov.	2,703	2,823	120	3,069	1,579	1,641	62	2,513
Dec.	2,891	3,052	161	3,776	1,660	1,743	83	2,762
Average	2,661	2,764	103	2,969	1,580	1,634	54	2,562

**Total Petroleum Products**

The imbalance between the supply and disposition of unfinished oils is now reported as part of the reclassified products (line 39) in the U.S. Petroleum Balance (Table 1). Imbalances between the supply and disposition of gasoline blending components comprise the remainder of the reclassified in Table 1. These imbalances are reported as negative product supplied in the Other Liquids section of the table of Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

## Note 5 Notes on Tables

**5.1 Crude Oil and Petroleum Products Overview** statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (-), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.

- Natural Gas Plant Production is the sum of Natural Gas Plant Liquids and Finished Petroleum Products Field Production in Table 4.

- Petroleum Products Imports is the sum of Natural Gas Plant Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.

- Petroleum Products Exports is the sum of Natural Gas Plant Liquids and LRGs, Other Liquids, and Finished Petroleum Products Exports in Table 4.

- Total Crude Oil and Petroleum Products Ending Stocks appear in thousands of barrels in Table 2.

**5.2 Crude Oil Supply and Disposition** statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Imports Gross Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (-), Unaccounted For Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.

- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousands of barrels in Table 1.

- Total Crude Oil Ending Stocks appear in thousands of barrels in Table 2.

- Total Imports appear in Table 4.

**5.3 Finished Motor Gasoline Supply and Disposition** statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.

- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.

- Ending Stocks appear in thousands of barrels in Table 2.

**5.4 Distillate and Residual Fuel Oil Supply and Disposition** statistics on the referenced lines appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Crude Used Directly, Exports, and Product Supplied appear as labeled in Table 4.

- Ending Stocks appear in thousands of barrels in Table 2.

**5.5 Liquefied Petroleum Gases and Ethane** statistics represent the aggregation of statistics on ethane, propane, butane, butane-propane mixtures, ethane-propane mixtures, and isobutane. The statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousands of barrels in Table 2.

**5.6 Other Petroleum Products Supply and Disposition** statistics represent the aggregation of statistics on natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil. The statistics on the referenced line are aggregated from Table 4 of the Detailed Statistics, except where noted.

- Total Production is the aggregated sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.
- Ending stocks are aggregated from ending stocks in thousands of barrels in Table 2.

#### **Note 5.7 Table 1. U.S. Petroleum Balance**

- Lines (1) through (3) of Table 1: Crude oil (including lease condensate) production for "Alaska," "Lower 48 States," and "Total U.S." are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 2.2), and taking the difference to equal production in the lower 48 states.
- Line (5) of Table 1: SPR imports are reported on Survey Form ERA-60.
- Line (12) of Table 1: "Total Other Sources" equals crude oil stock withdrawal (+) or addition (-) plus unaccounted for crude oil plus crude used as fuel and losses in Table 2.
- Line (14) of Table 1: Natural gas plant liquids (NGPL) "Production" equals field production of natural gas plant liquids (NGPL) plus field production of finished petroleum products in Table 2.
- Line (15) of Table 1: NGPL "Imports" equals the sum of the imports of natural gasoline and isopentane, unfractionated stream, and plant condensate imports in Table 2.
- Line (16) of Table 1: NGPL "Stock Withdrawal (+) or Addition (-)" is equal to the sum of stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate in Table 2.
- Line (17) of Table 1 equals the sum of lines (14), (15), and (16) of Table 1.
- Line (18) of Table 1: unfinished oils and gasoline blending components "Stock Withdrawal (+) or Addition (-)" equals stock withdrawal (+) or addition (-) for other hydrocarbons and alcohol, for unfinished oils, motor gasoline blending components, and aviation gasoline blending components.
- Line (20) of Table 1: "Other Hydrocarbons and Alcohol New Supply" equals the field production of same in Table 2.
- Line (21) on Table 1: "Refinery Processing Gain" is a balancing item equal to total refinery production minus total refinery input in Table 2.
- Line (22) on Table 1: "Crude Used Directly" equals the sum of crude oil used directly as distillate and residual fuel oils in Table 2.
- Line (23) of Table 1: "Total Other Liquids" equals the sum of lines (18) through (22) of Table 1.
- Line (24) of Table 1: "Total Production of Products" equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or

addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil used as distillate and residual fuel oils in Table 2.

- Line (25) of Table 1: "Gross Imports of Refined Products" equals imports of LPG and ethane plus imports of finished petroleum products in Table 2.

- Line (26) of Table 1: "Exports of Refined Products" equals exports of LPG and ethane plus exports of finished petroleum products in Table 2.

- Line (27) of Table 1: "Net Imports of Refined Products" equals the difference between lines (25) and (26) of Table (1).

- Line (28) of Table 1: "Total New Supply of Products" equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil used as distillate and residual fuel oils; plus imports of LPG and ethane and finished petroleum products; minus exports of LPG and ethane and finished petroleum products in Table 2.

- Line (29) of Table 1: "Refined Products Stocks Withdrawal (+) or Addition (-)" equals the sum of stock withdrawal (+) or addition (-) for LPG and ethane, and finished petroleum products in Table 2.

- Line (30) of Table 1: "Total Petroleum Products Supplied for Domestic Use" equals total products supplied in Table 2.

- Lines (31) through (37) of Table 1 equal the respective products supplied in Table 2.

- Line (38) of Table 1: "Other Products Supplied" equals the sum of natural gasoline and isopentane, unfractionated stream, plant condensate, aviation gasoline, naphtha < 400 Deg. F for petrochemical feedstock uses, other oils > 400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, coke, asphalt, road oil, still gas, and miscellaneous products supplied in Table 2.

- Line (39) of Table 1: "Total Reclassified" is a balancing item equal to the sum of unfinished oils, motor gasoline blending components, and aviation gasoline blending components products supplied in Table 2.

- Line (40) of Table 1: "Total Product Supplied" is equal to total products supplied in Table 2.

- The sum of lines (41) and (42) of Table 1, stocks of "Crude Oil and Lease Condensate (Excluding SPR)" and stocks held by the "Strategic Petroleum Reserve," equals ending stocks of crude oil in Table 2. SPR stocks are reported on Form EIA-90.

- Line (46) of Table 1, stocks of "Refined Products," equals the sum of LPG and ethane and finished petroleum product stocks in Table 2.





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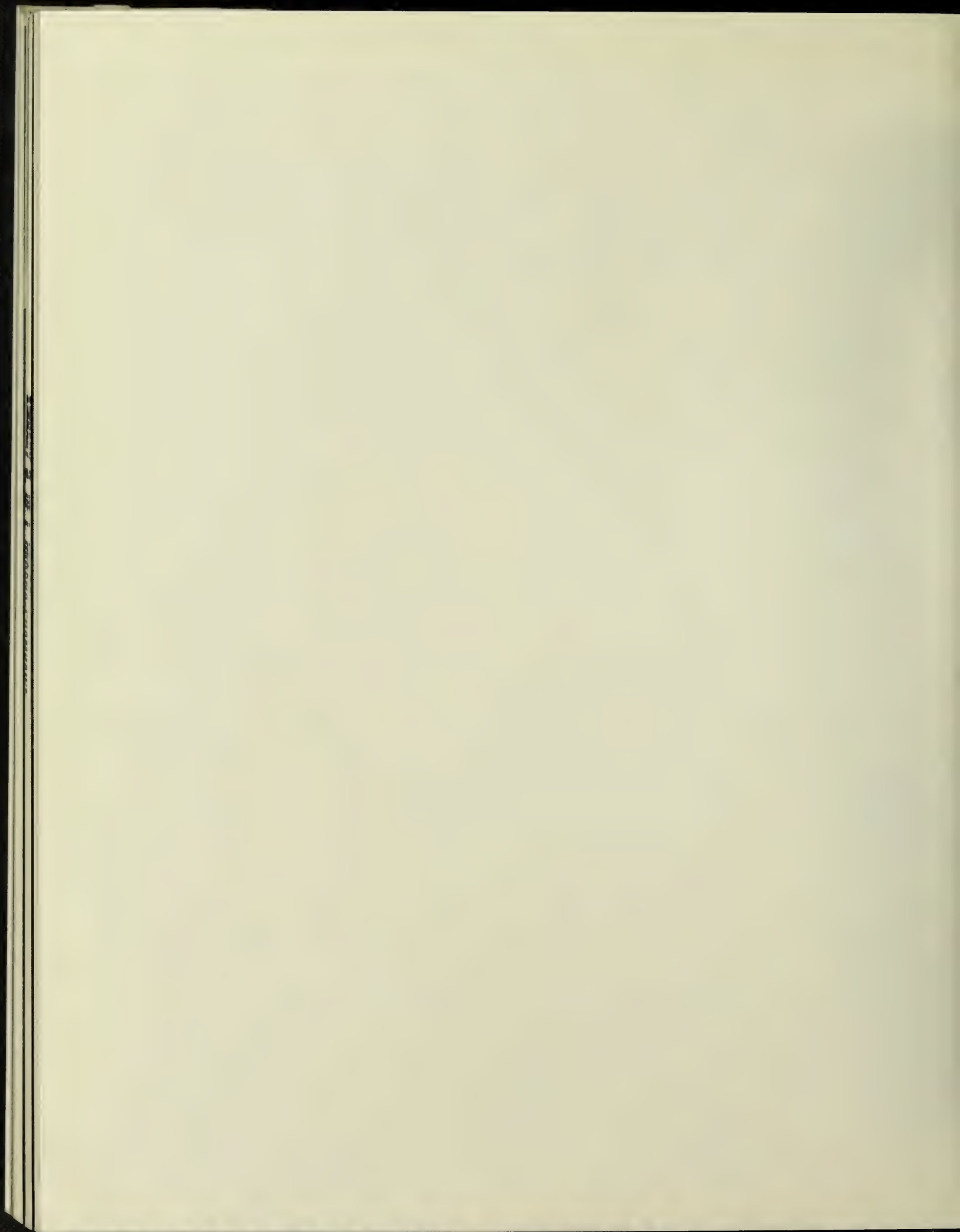
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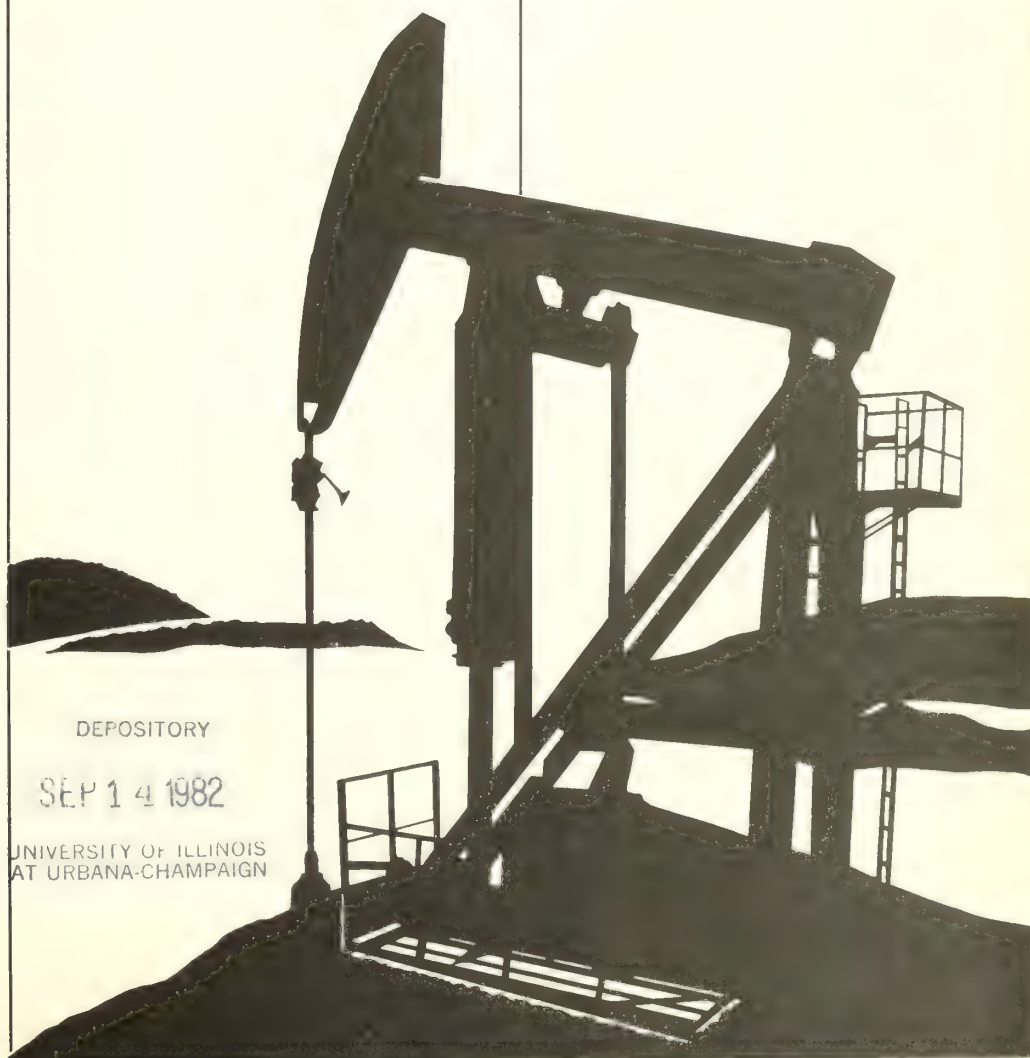




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# Petroleum Supply Monthly

Energy Information Administration  
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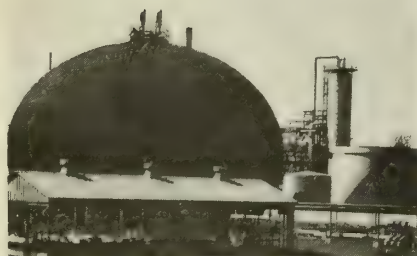


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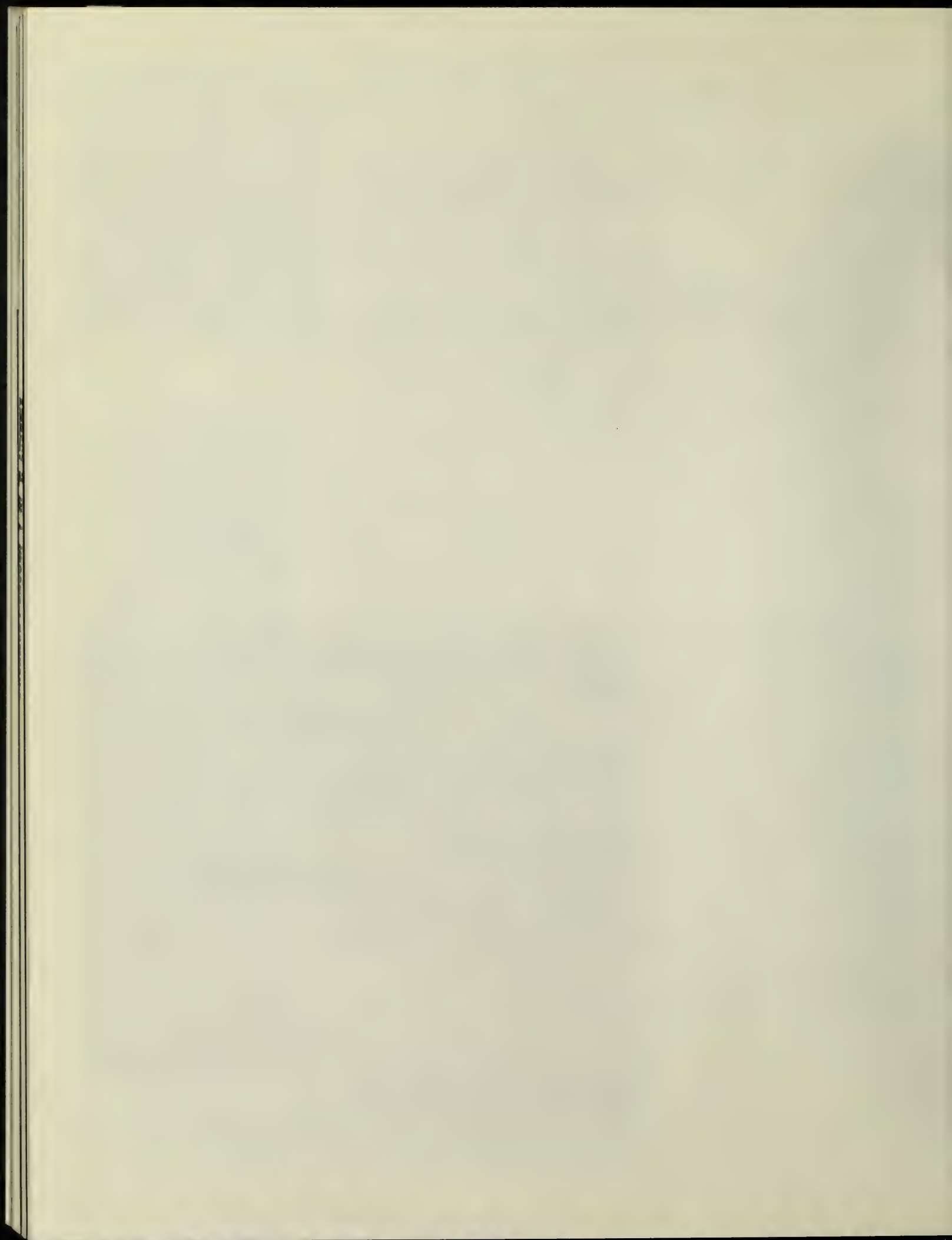
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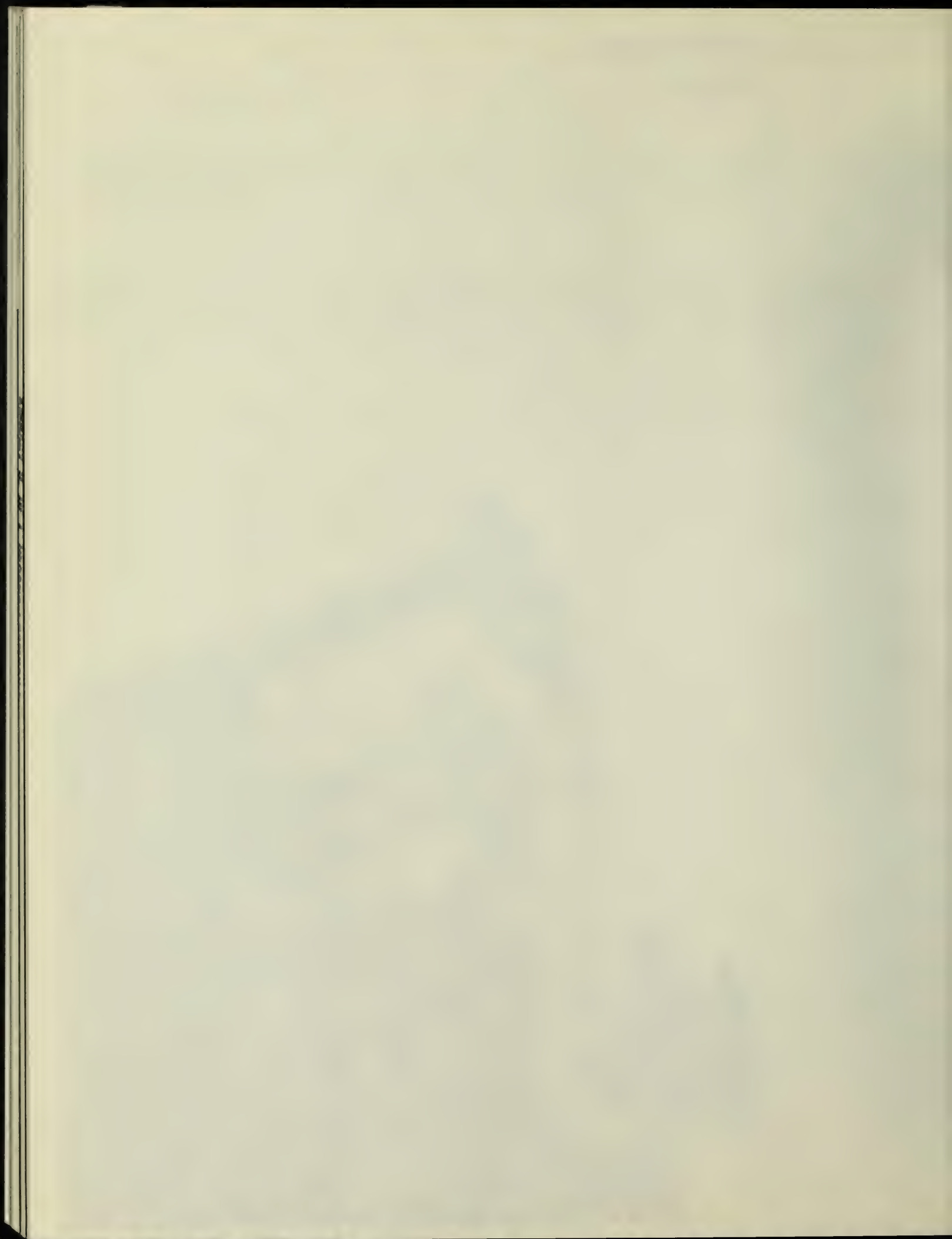
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# **Petroleum Focus**





# Petroleum Focus



<sup>1</sup>Form EIA-177: Petroleum Refineries in the United States and U.S. Territories.

<sup>2</sup>Data were not collected for years 1942 through 1946.

<sup>3</sup>Downstream processing is further refinery processing of petroleum products after they have been produced either in crude oil distillation units or in other downstream units. Downstream processing equipment includes hydrocrackers, thermal crackers, thermal reformers, catalytic reformers, cokers, etc.

## 1982 EIA Petroleum Refinery Survey Results

### Synopsis

Early each year the Energy Information Administration (EIA) conducts a survey<sup>1</sup> of petroleum refineries to identify capacity changes that have occurred during the past year and to learn of refiners' plans for the upcoming year. This year marks the 60th year that the survey, begun by the Bureau of Mines in 1918, has been conducted.<sup>2</sup>

The recently completed 1982 survey reveals that twenty-three refineries with an aggregate crude oil distillation capacity of 451 thousand barrels per day that were operable on January 1, 1981, were permanently shutdown by January 1, 1982, and average utilization of the remaining refineries declined. Details of the survey will be published in EIA's *Petroleum Supply Annual*, scheduled for release in July 1982.

While the number of operable refineries decreased last year and average utilization declined, the shift toward more complex refining facilities begun several years ago continued. A number of refiners continued to upgrade their downstream<sup>3</sup> processing equipment in an attempt to diversify their product mixes and increase yields of lighter products such as gasoline and jet fuel.

### Changes in the Refining Industry 1979-1982

During 1979, crude oil distillation capacity grew while its utilization exceeded 80 percent of capacity. Throughout 1980, capacity continued to increase although utilization began to decline. During 1981, as utilization continued to decline, refiners closed down facilities and capacity decreased. (See Table 1.) Operable crude oil distillation capacity (operating

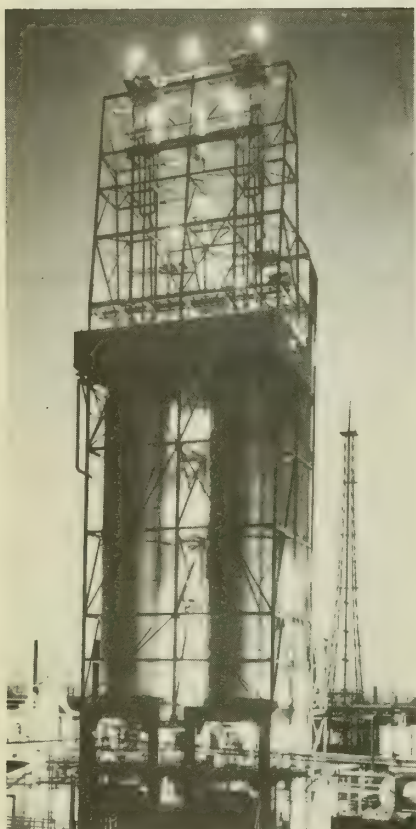
**Table 1. Refinery Operations  
(Thousand Barrels Per Day)**

	Refinery Capacity*	Input**	Utilization (Percent)	Idle Capacity*
<b>1979</b>				
1st Qtr.	17,441	14,725	84.4	293
2nd Qtr.	17,603	14,897	84.6	658
3rd Qtr.	17,680	15,204	86.0	539
4th Qtr.	17,815	14,962	84.0	789
<b>1980</b>				
1st Qtr.	17,988	14,388	80.0	378
2nd Qtr.	18,213	13,832	75.9	497
3rd Qtr.	18,281	13,512	73.9	553
4th Qtr.	18,413	13,467	73.1	639
<b>1981</b>				
1st Qtr.	18,621	13,100	70.3	569
2nd Qtr.	18,684	12,522	67.0	1,218
3rd Qtr.	18,656	12,843	68.8	1,316
4th Qtr.	18,442	12,572	68.2	1,559
<b>1982</b>				
1st Qtr.	17,890	11,773	65.8	1,786

\*As of the beginning of the first month of each quarter.

\*\*Average for quarter.

SOURCE: EIA-87 and EIA-177.



capacity plus idle capacity)<sup>4,5</sup> on January 1, 1982, was 17.9 million barrels per day (MMB/D), 731 thousand barrels per day (MB/D) less than at the beginning of the previous year. This is the first time that total operable capacity has dropped since 1966. In addition, idle capacity for the U.S. on January 1, 1982, is estimated at 1.8 MMB/D, a 214 percent increase over the January 1, 1981, level of 569 MB/D. Total operating crude distillation capacity on January 1, 1982, was reported at 16.1 MMB/D, an 11 percent decline from January 1, 1981. (See Table 2.)

On January 1, 1980, there were 319 operable refineries in the United States and capacity utilization averaged 75.5 percent during 1980. By January 1, 1981, there were 324 operable refineries and average refinery utilization during 1981 was 68.5 percent of capacity. By January 1, 1982, 301 refineries were operable in the United States and during January 1982 their utilization rate was 66.3 percent.

Of the 301 refineries operable on January 1, 1982, 74 refineries were either partially or totally idle. This can occur for operational reasons such as when a refinery is undergoing scheduled or unscheduled maintenance, and for economic reasons such as when a weak market exists for the particular products that the refinery produces.

Twenty-three refineries that were operating on January 1, 1981, were permanently shutdown by January 1, 1982, a loss of 451 MB/D of crude oil distillation capacity (see Table 3). The total loss in downstream capacity was 469 MB/D. The three largest shutdown refineries accounted for 50 percent of the crude oil distillation capacity loss, and 69 percent of the downstream capacity loss (see Exhibit 1). Fifteen of the shutdown refineries had no downstream capacity. The primary reasons for the shutdowns were the decline in petroleum consumption since the peak in 1978 and the decontrol of crude oil.

Crude oil allocation entitlements and associated Federal regulations, when they were in effect, ensured small refiners a source of crude oil at costs that were competitive with the large integrated refining companies. They required refiners to maintain the same supplier-marketer relationships that existed in 1972. With the deregulation of

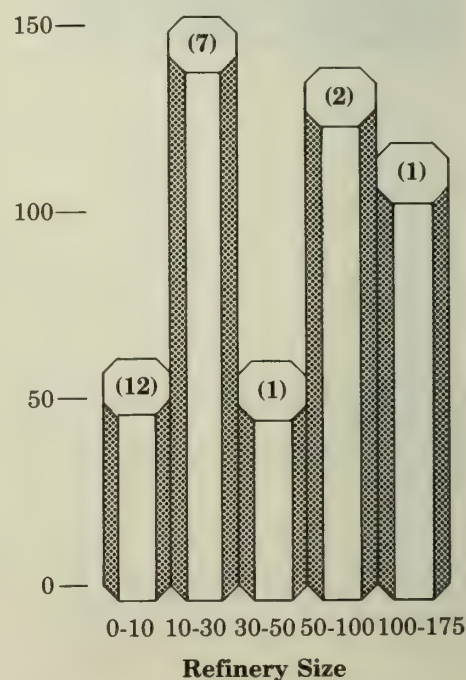
domestic crude oil prices, this program was ended. The loss of these arrangements encouraged several smaller, marginal companies to discontinue operations.

In addition, some refiners appear to have decided to change their marketing and distribution networks and these decisions have resulted in the closing of several refineries.

## The Shape of U.S. Refining Capacity 1982

Of the 301 refineries operable at the beginning of 1982, 204 (68 percent) had crude oil distillation capacity under 50 MB/D. The remaining 97 refineries (32 percent) reported capacities 50 MB/D or greater. This mix of refineries reflects a shift away from facilities smaller than 30 MB/D toward more refineries in the 30-50 and 100-175 MB/D size categories (Exhibit 2).

**Exhibit 1.**  
**Crude Oil Distillation Capacity Permanently Shutdown During 1981**  
(Thousand Barrels Per Day)  
*Numbers in parenthesis indicate number of refineries.*



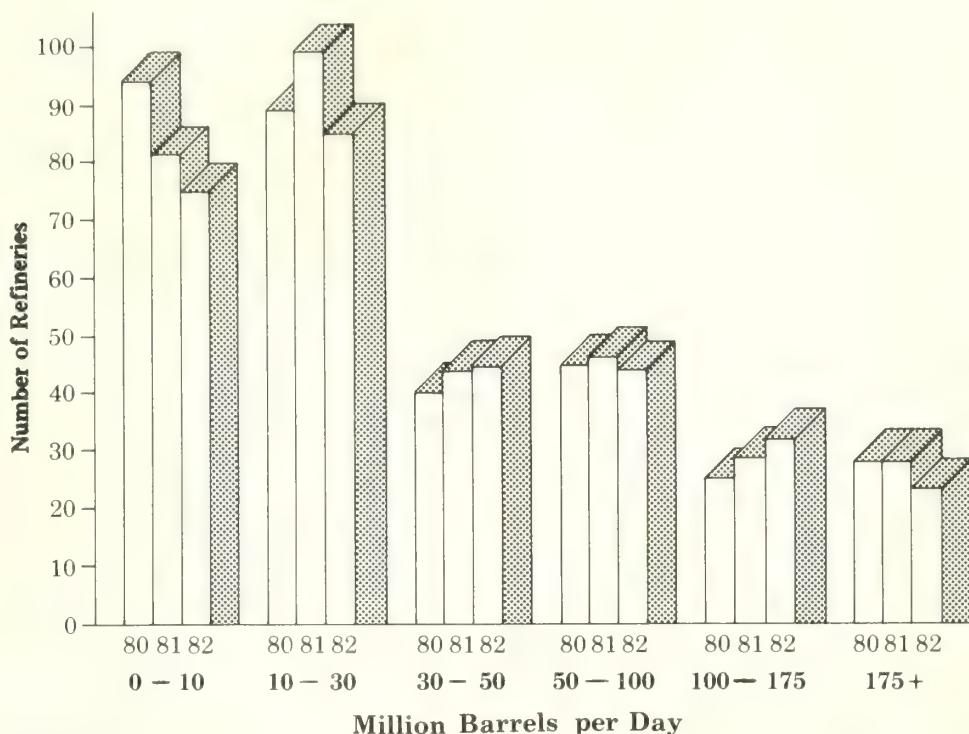
<sup>4</sup>Idle capacity refers to operable capacity that is shutdown but capable of being placed in operation within approximately 90 days.

<sup>5</sup>Operating capacity refers to capacity that is in operation.

*Despite a reduction in the number of operable refineries in the U.S., the industry is maintaining its flexibility to produce preferred fuels and to meet expected demand.*

## Exhibit 2. Distribution of Refineries By Size (1980-1982)

Source: EIA-177 (1980, 1981, 1982)



Although the number of refineries decreased from January 1, 1981 to January 1, 1982, the remaining refinery facilities continued to be upgraded to process crudes requiring more sophisticated equipment. In addition, some refiners closed less complex facilities while expanding others to be able to produce more marketable products. (See Table 4.) With the demand for the heavier petroleum products lagging behind the demand for the lighter petroleum products, refiners are enhancing their processing capabilities, which enable lighter fuels to be produced from the heavier oils.

### Product Output Projections

Industry estimates submitted to the Energy Information Administration for refinery production of major petroleum products in 1982 are summarized in

Table 5. Increases in production are expected in transportation fuels, particularly naphtha-type jet fuel for military use, kerosene-type jet fuel used by commercial aircraft, and unleaded motor gasoline.

### Conclusion

The EIA refinery survey reveals that there has been a decline in the total number of operable refineries, from 324 on January 1, 1981, to 301 on January 1, 1982, while some refinery facilities are being upgraded to meet changing market conditions. Because of the introduction of more sophisticated equipment in a number of refineries, the industry is maintaining its flexibility to produce preferred fuels. Further, the survey also reveals that the U.S. refining industry is equipped to meet expected levels of demand.

Table 2.

## Number and Capacity of Operable Petroleum Refineries by PAD District and State, as of January 1, 1982

PAD District and States	Number of Operable Refineries			Crude Capacity			
	Total	Operating	Idle <sup>1</sup>	Barrels per Calendar Day <sup>2</sup>		Barrels per Stream Day <sup>3</sup>	
				Operating	Idle	Operating	Idle
<b>PAD District I</b>							
Delaware	1	1	0	140,000	0	150,000	0
Florida	1	0	1	0	15,000	0	15,700
Georgia	2	2	0	29,000	0	32,200	0
Maryland	2	1	1	15,000	14,200	16,000	15,000
New Jersey	6	5	1	602,100	133,000	634,900	140,000
New York	2	2	0	97,900	0	106,000	0
Pennsylvania	9	9	0	704,041	0	747,100	0
Virginia	1	1	0	53,000	0	55,000	0
West Virginia	3	3	0	22,100	0	23,100	0
<b>Total</b>	<b>27</b>	<b>24</b>	<b>3</b>	<b>1,663,141</b>	<b>162,200</b>	<b>1,764,300</b>	<b>170,700</b>
<b>PAD District II</b>							
Illinois	8	7	1	948,100	76,200	1,002,000	81,260
Indiana	7	5	2	468,700	133,600	498,800	138,187
Kansas	11	9	2	452,959	12,500	481,133	13,750
Kentucky	4	3	1	244,100	3,000	252,300	3,500
Michigan	5	4	1	117,100	11,500	124,800	12,500
Minnesota	2	2	0	194,443	0	201,125	0
Missouri	1	1	0	104,000	0	111,000	0
Nebraska	1	1	0	5,600	0	6,170	0
North Dakota	3	2	1	60,250	5,000	63,600	5,250
Ohio	6	6	0	543,100	0	567,000	0
Oklahoma	13	12	1	526,100	40,400	543,900	42,000
Tennessee	1	1	0	49,500	0	49,900	0
Wisconsin	1	1	0	39,000	0	40,000	0
<b>Total</b>	<b>63</b>	<b>54</b>	<b>9</b>	<b>3,752,952</b>	<b>282,200</b>	<b>3,941,728</b>	<b>296,447</b>
<b>PAD District III</b>							
Alabama	6	6	0	142,900	0	150,500	0
Arkansas	4	4	0	53,000	11,200	54,900	11,500
Louisiana	34	26	8	2,287,480	219,391	2,399,583	237,205
Mississippi	7	6	1	355,300	16,000	379,559	20,000
New Mexico	7	7	0	117,924	0	129,416	0
Texas	65	48	17	4,322,094	745,654	4,601,800	834,800
<b>Total</b>	<b>123</b>	<b>97</b>	<b>26</b>	<b>7,278,698</b>	<b>992,245</b>	<b>7,715,758</b>	<b>1,103,505</b>
<b>PAD District IV</b>							
Colorado	3	3	0	84,400	0	87,500	0
Montana	6	6	0	146,250	7,800	152,650	8,000
Utah	8	8	0	162,300	4,200	171,000	4,300
Wyoming	12	10	2	209,555	20,180	218,100	25,190
<b>Total</b>	<b>29</b>	<b>27</b>	<b>2</b>	<b>602,505</b>	<b>32,180</b>	<b>629,250</b>	<b>37,490</b>
<b>PAD District V</b>							
Alaska	4	4	0	130,023	0	135,300	0
Arizona	1	1	0	4,015	0	5,700	0
California	43	38	5	2,233,065	301,600	2,397,946	339,600
Hawaii	1	1	0	48,000	0	50,000	0
Nevada	1	1	0	4,180	0	4,500	0
Oregon	1	0	1	0	15,000	0	16,000
Washington	8	7	1	387,000	730	408,800	1,000
<b>Total</b>	<b>59</b>	<b>52</b>	<b>7</b>	<b>2,806,283</b>	<b>317,330</b>	<b>3,002,246</b>	<b>356,600</b>
<b>United States, Total</b>	<b>301</b>	<b>254</b>	<b>47</b>	<b>16,103,579</b>	<b>1,786,155</b>	<b>17,053,282</b>	<b>1,964,742</b>
Virgin Islands	1	1	0	585,000	115,000	585,000	115,000
Puerto Rico	4	3	1	182,454	73,041	200,000	84,000
Hawaiian Foreign Trade Zone	1	1	0	67,900	0	67,900	0
Guam	1	1	0	43,900	0	47,160	0

<sup>1</sup>Does not include refineries that were permanently shutdown on January 1, 1982 and only includes refineries totally idle.

<sup>2</sup>Barrels Per Calendar Day represents the amount that can be processed in an average twenty-four hour period after making allowances for: downstream limitations, environmental constraints, types and grades of inputs, planned and unplanned downtime, and types and grades of products.

**Table 2.**  
**(Continued)**

**Number and Capacity of Operable Petroleum Refineries by  
PAD District and State, as of January 1, 1982**

PAD District and States	Charge Capacity (Barrels per Stream Day) <sup>a</sup>							
	Vacuum Distilla- tion	Thermal Opera- tion	Catalytic Cracking (fresh)	Catalytic Cracking (Recycle)	Catalytic Reform- ing	Catalytic Hydro- cracking	Catalytic Hydro- refining	Catalytic Hydro- treating
<b>PAD District I</b>								
Delaware	90,700	44,000	62,000	15,000	42,000	20,000	0	110,000
Florida	10,000	0	0	0	0	0	0	0
Georgia	0	0	0	0	0	0	0	0
Maryland	13,800	0	0	0	0	0	0	0
New Jersey	408,700	34,500	262,000	45,000	124,500	0	130,000	314,600
New York	55,000	0	22,000	0	11,000	0	15,200	11,000
Pennsylvania	334,180	0	249,300	23,300	212,900	55,000	113,000	378,800
Virginia	29,000	15,000	28,000	5,000	9,500	0	0	26,500
West Virginia	6,000	0	0	0	6,600	4,440	0	0
<b>Total</b>	<b>947,380</b>	<b>93,500</b>	<b>623,300</b>	<b>88,300</b>	<b>406,500</b>	<b>79,440</b>	<b>258,200</b>	<b>840,900</b>
<b>PAD District II</b>								
Illinois	385,000	104,300	374,000	17,400	280,400	66,500	6,000	527,800
Indiana	262,200	20,000	215,000	11,000	123,500	0	50,000	203,160
Kansas	141,860	50,600	181,800	42,200	114,000	3,190	40,000	157,800
Kentucky	100,500	2,600	71,500	0	49,000	0	91,000	53,200
Michigan	26,000	0	45,000	1,300	35,000	0	17,700	18,700
Minnesota	110,000	24,000	75,800	0	45,500	0	116,000	12,500
Missouri	40,000	14,000	42,000	12,000	16,000	0	0	61,500
Nebraska	2,400	0	2,400	500	750	0	0	0
North Dakota	0	0	26,000	5,200	11,000	0	0	17,000
Ohio	202,000	27,400	186,700	33,800	148,700	74,000	31,500	160,500
Oklahoma	188,600	54,800	206,000	16,400	126,800	5,000	26,000	126,300
Tennessee	12,000	0	30,000	12,000	9,300	0	0	29,500
Wisconsin	15,000	0	9,500	1,000	9,800	0	0	17,300
<b>Total</b>	<b>1,485,560</b>	<b>297,700</b>	<b>1,465,700</b>	<b>152,800</b>	<b>969,750</b>	<b>148,690</b>	<b>378,200</b>	<b>1,385,260</b>
<b>PAD District III</b>								
Alabama	32,000	10,000	0	0	23,500	0	4,000	43,300
Arkansas	29,500	0	16,000	800	9,000	0	5,500	0
Louisiana	1,056,280	381,100	823,900	42,300	441,580	71,700	143,900	808,900
Mississippi	186,875	7,000	74,000	2,000	95,800	68,000	104,000	10,300
New Mexico	22,400	1,500	27,100	4,000	23,150	0	0	25,950
Texas	1,793,875	467,300	1,558,800	177,000	1,172,900	136,000	659,400	2,279,600
<b>Total</b>	<b>3,120,930</b>	<b>866,900</b>	<b>2,499,800</b>	<b>226,100</b>	<b>1,765,930</b>	<b>275,700</b>	<b>916,800</b>	<b>3,168,050</b>
<b>PAD District IV</b>								
Colorado	36,000	4,500	24,500	825	19,500	0	0	28,700
Montana	37,100	8,700	51,600	12,450	44,100	4,900	3,500	112,450
Utah	47,000	8,500	54,000	10,100	26,400	1,200	0	35,600
Wyoming	97,020	13,000	71,500	16,700	36,950	0	7,700	61,000
<b>Total</b>	<b>217,120</b>	<b>34,700</b>	<b>201,600</b>	<b>40,075</b>	<b>126,950</b>	<b>6,100</b>	<b>11,200</b>	<b>237,750</b>
<b>PAD District V</b>								
Alaska	10,000	0	0	0	10,000	7,500	0	0
Arizona	0	0	0	0	0	0	0	0
California	1,196,200	448,800	569,700	32,020	576,630	328,700	193,925	956,800
Hawaii	28,000	0	22,000	0	0	0	0	0
Nevada	2,400	0	0	0	0	0	0	0
Oregon	16,000	0	0	0	0	0	0	0
Washington	173,600	40,000	91,500	23,000	110,500	46,000	0	192,300
<b>Total</b>	<b>1,426,200</b>	<b>488,800</b>	<b>683,200</b>	<b>55,020</b>	<b>697,130</b>	<b>382,200</b>	<b>193,925</b>	<b>1,149,100</b>
<b>United States, Total</b>	<b>7,197,190</b>	<b>1,781,600</b>	<b>5,473,600</b>	<b>562,295</b>	<b>3,966,260</b>	<b>892,130</b>	<b>1,758,325</b>	<b>6,781,060</b>
Virgin Islands	190,000	0	0	0	125,000	0	0	420,000
Puerto Rico	131,500	20,000	52,000	4,000	93,570	15,000	0	134,600
Hawaiian Foreign Trade Zone	30,000	0	0	0	13,000	12,000	0	13,000
Guam	1,400	0	0	0	0	0	0	0

<sup>a</sup>Barrels Per Stream Day represents the amount a unit can process running at full capacity under optimal crude and product mix conditions.

Source: Form EIA-177.

***By January 1, 1982, 23 refineries that were operating on January 1, 1981 were permanently shutdown. This represents a loss of 451 MB/D of crude oil distillation capacity.***



**Table 3. Refineries Permanently Shutdown  
(Barrels per Calendar Day)**

Refineries	Location	Crude Distillation Capacity	Date Shutdown
<b>PAD District I</b>			
ATC Petroleum Inc.	Wilmington, North Carolina	11,900	1/82
ATC Petroleum Inc.	Newington, New Hampshire	13,400	1/82
Manatee Energy Co.	Port Manatee, Florida	28,400	10/81
Mobil Oil Corp.	Buffalo, New York	43,000	7/81
<b>Total</b>		<b>96,700</b>	
<b>PAD District II</b>			
Amoco Oil Co.	Wood River, Illinois	104,000	10/81
Conoco Inc.	Wrenshall, Minnesota	23,500	9/81
Dow Chemical U.S.A. Energy Development Inc.	Bay City, Michigan	20,000	9/81
Gulf Oil Corp.	Crossville, Illinois	1,000	4/81
Kentucky Oil and Refining Co.	Toledo, Ohio	50,300	11/81
Texaco Inc.	Troy, Indiana	1,500	10/81
Wireback Oil Co.	Lockport, Illinois	72,000	10/81
	Plymouth, Illinois	1,800	3/81
<b>Total</b>		<b>274,100</b>	
<b>PAD District III</b>			
Adobe Refining Co., Division of Funding Systems Refining Corp.	La Blanca, Texas	5,200	1/82
Carbonit Refinery Inc.	Hearne, Texas	11,000	1/82
Gulf Oil Corp.	Venice, Louisiana	28,700	12/81
Southern Union Refining Co.	Monument, New Mexico	5,400	10/81
Southland Oil Co.	Yazoo City, Mississippi	5,500	7/81
Texas Refining	Midland, Texas	2,500	6/81
Texas Standard Refining Inc.	Houston, Texas	1,800	10/81
<b>Total</b>		<b>60,100</b>	
<b>PAD District IV</b>			
Glenrock Refinery Inc.	Glenrock, Wyoming	6,000	9/81
Southwestern Refining Co.	La Barge, Wyoming	1,040	8/81
<b>Total</b>		<b>7,040</b>	
<b>PAD District V</b>			
Quad Refining Corp.	Bakersfield, California	7,000	10/81
Road Oil Sales Inc.	Bakersfield, California	6,000	1/82
<b>Total</b>		<b>13,000</b>	
<b>United States, Total</b>		<b>450,940</b>	

Source: Form EIA-177.

*While the number of refineries in the U.S. has decreased, refiners continue to upgrade their facilities to enhance their processing capabilities.*

**Table 4. U.S. Refining Capacity Comparison  
(Thousand Barrels Per Day)**

	1/1/81	1/1/82	Percent Change
<b>Crude Oil Distillation (MB/CD)</b>	18,621	17,890	-3.9
<b>Downstream Charge (MB/SD)</b>			
Vacuum Distillation	7,033	7,197	2.3
Thermal Operations <sup>1</sup>	1,587	1,782	12.3
Catalytic Reforming	4,098	3,966	-3.2
Catalytic Cracking	6,136	6,036	-1.6
Catalytic Hydrocracking	909	892	-1.9
Hydrotreating	1,777	1,758	-1.1
Hydrotreating	6,710	6,781	1.1
<b>Downstream Production</b>			
Alkylation	974	984	1.0
Aromatic Isomerization	429	452	5.4
Lubes	234	242	3.4
Coke (short ton/day)	55	53	-3.6
Asphalt	765	740	-3.3

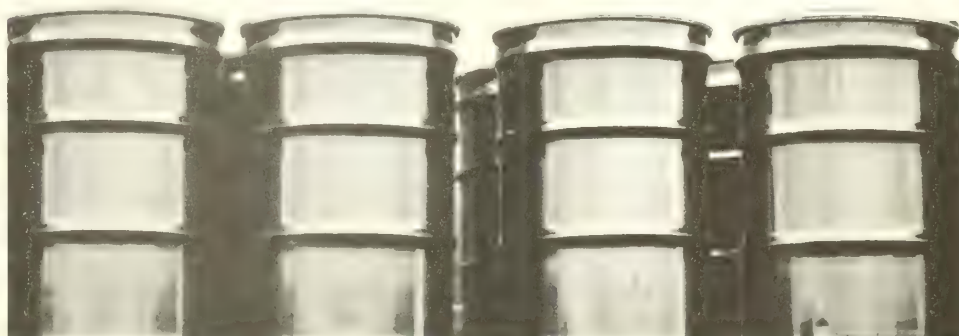
Source: Form EIA-177.

<sup>1</sup>Thermal Operations—Includes thermal cracking and coking.

**Table 5. Refiner Projections of Major Product Production  
1981-1982  
(Thousand Barrels Per Day)**

	Actual 1981	Projected 1982	Percent Change
Motor Gasoline, Leaded	3,207	3,398	6.0
Motor Gasoline, Unleaded	3,195	3,493	9.3
Jet Fuel, Naphtha-type	193	233	20.7
Jet Fuel, Kerosene-type	775	865	11.6
Residual Fuel Oil	1,316	1,303	-1.0
Distillate Fuel Oil	2,616	2,637	0.8
<b>Total</b>	<b>11,302</b>	<b>11,929</b>	<b>5.5</b>

Source: Form EIA-177 (January 1, 1982) (Estimates)  
Form EIA-87 (1981, Jan. - Dec.) (Actual)



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## Glossary of Refining Terms

### Alkylation:

A catalytic process to form alkylate, a gasoline component extremely important in the production of unleaded gasoline.

### Catalyst:

A solid or liquid substance used to increase the rate of chemical reactions but not directly involved in the reaction.

### Coking:

Thermal cracking process in which vacuum distillation unit residuum is converted to lower boiling range material and coke.

### Cracking:

A catalytic or thermal process in which large hydrocarbon molecules are divided into smaller molecules.

### Distillation:

A refining process of separating crude petroleum constituents by vaporizing and subsequent condensing of the fractions.

### Hydrosulfurization:

A process in which hydrogen is used to remove sulfur, nitrogen, and metals from petroleum in the presence of a catalyst.

### Hydrotreating:

A process in which petroleum is reacted with hydrogen in the presence of a catalyst to remove sulfur or to hydrogenate unsaturated compounds.

### Hydrocracking:

A high temperature, high pressure catalytic process which cracks petroleum fractions in the presence of hydrogen.

### Isomerization:

Normal hydrocarbons are converted to their isomers by rearranging the molecular structure. The final product (isomerate) is used as a blending component in gasoline.

### Reforming:

A process in which octane rating of naphtha is increased by catalytic reaction or mild thermal cracking. The product, reformate, is used as a blending component in gasoline.

### Thermal Cracking:

Heating of oils to high temperatures at high pressures, which causes some atoms in larger molecules to split off and form other molecules. Cracking produces greater percentages of gasoline fractions by breaking down heavier compounds.

### Vacuum Distillation:

Separation of crude oil by distillation at below atmospheric pressure.

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### Source:

U.S. Department of Energy  
Refining Siting Workbook,  
DOE/RA-33001-01,  
Washington, D.C., July, 1980.

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## What is a Refinery?

Typical crude oil produced at wells is a malodorous, greenish-brown liquid. Literally hundreds of industrial, household and commercial products are at least partially composed of materials gleaned from this original crude. The conversion of crude petroleum to usable products begins in a refinery.

A petroleum refinery is essentially a manufacturing plant which converts raw oil to products that will meet stringent safety, purity and usage specifications. The most common process used to achieve this conversion is fractional distillation.

In this process, crude oil is fed continuously through heated pipes or "stills." The hot oil is discharged into a steel cylinder, about 120 feet high, called a fractionating tower. Here, all but the heaviest chemical components, or fractions, vaporize. The vapors rise up the tower, cooling as they go.

Horizontal trays set at different levels in the tower collect the vapors as they condense into liquids. At each tray, rising vapors enter perforations and "bubble caps", condensing on different trays according to the temperature at which they change from vapor to liquid. The condensed liquids are then drained off to the tray below, where higher temperatures cause re-evaporation. This cycle of evaporation, condensation and scrubbing is repeated until the desired purity is reached.

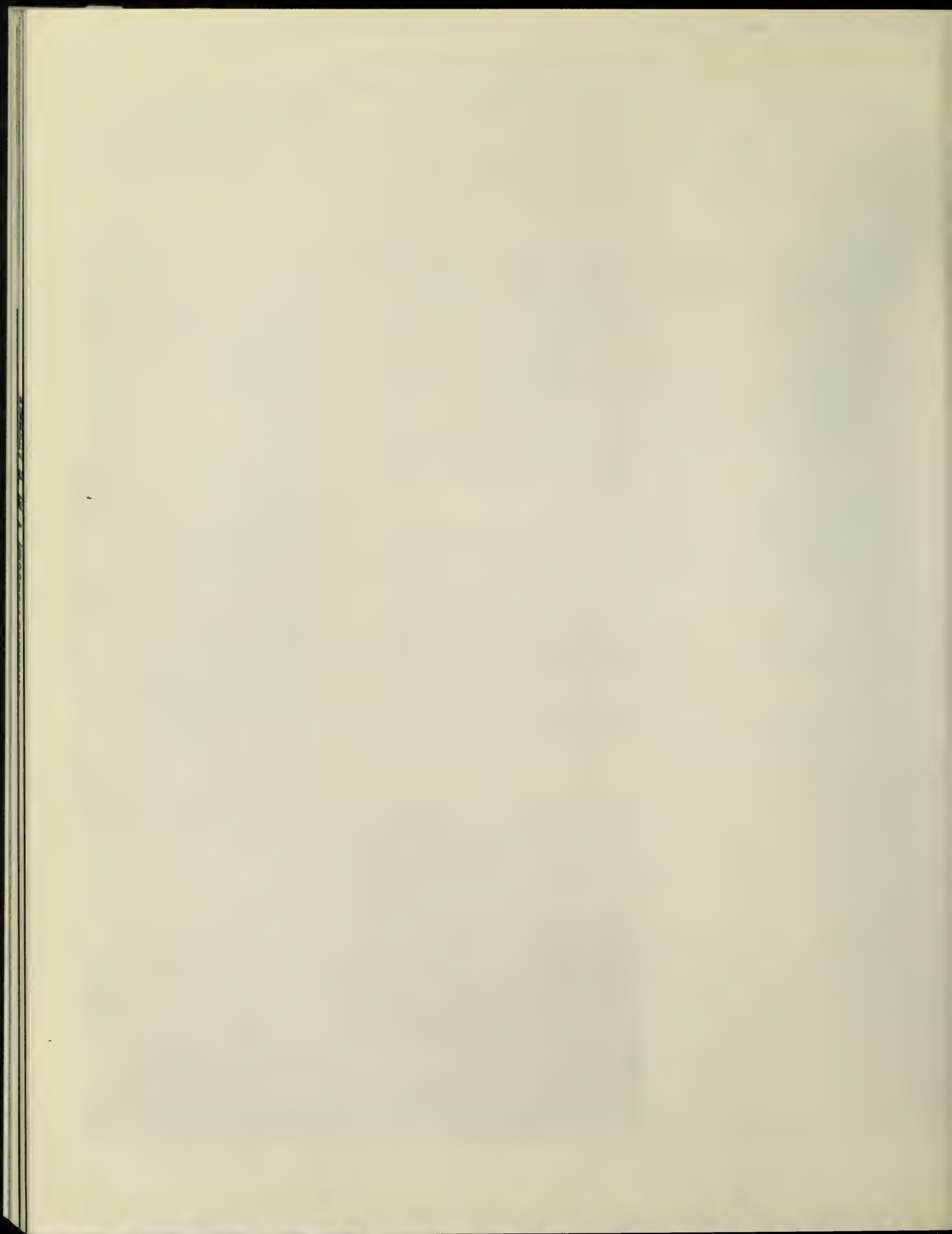
On the bottom tray of the tower products with high boiling points, such as asphalt and heavy fuel oil are found. On succeeding levels (and at lower temperatures) lubricating oil, heating oil, kerosene, gasoline and uncondensed gases are found.

Some refineries have only crude oil distillation facilities. Other refineries have a wide range of "downstream" units which crack and reform heavier molecules through the use of heat, pressure and catalysts. Additional units at these refineries treat the raw products further to remove impurities such as sulfur, salt and trace metals. Finally, these liquids are blended together, with or without additives, to produce the products desired.

Probably no two refineries in the United States are alike, since each originally was designed to process a certain type, or types, of crude oil and to produce a selected slate of products. Many are designed to produce a high yield of gasoline, the major product, while others are designed to produce fuel oils.

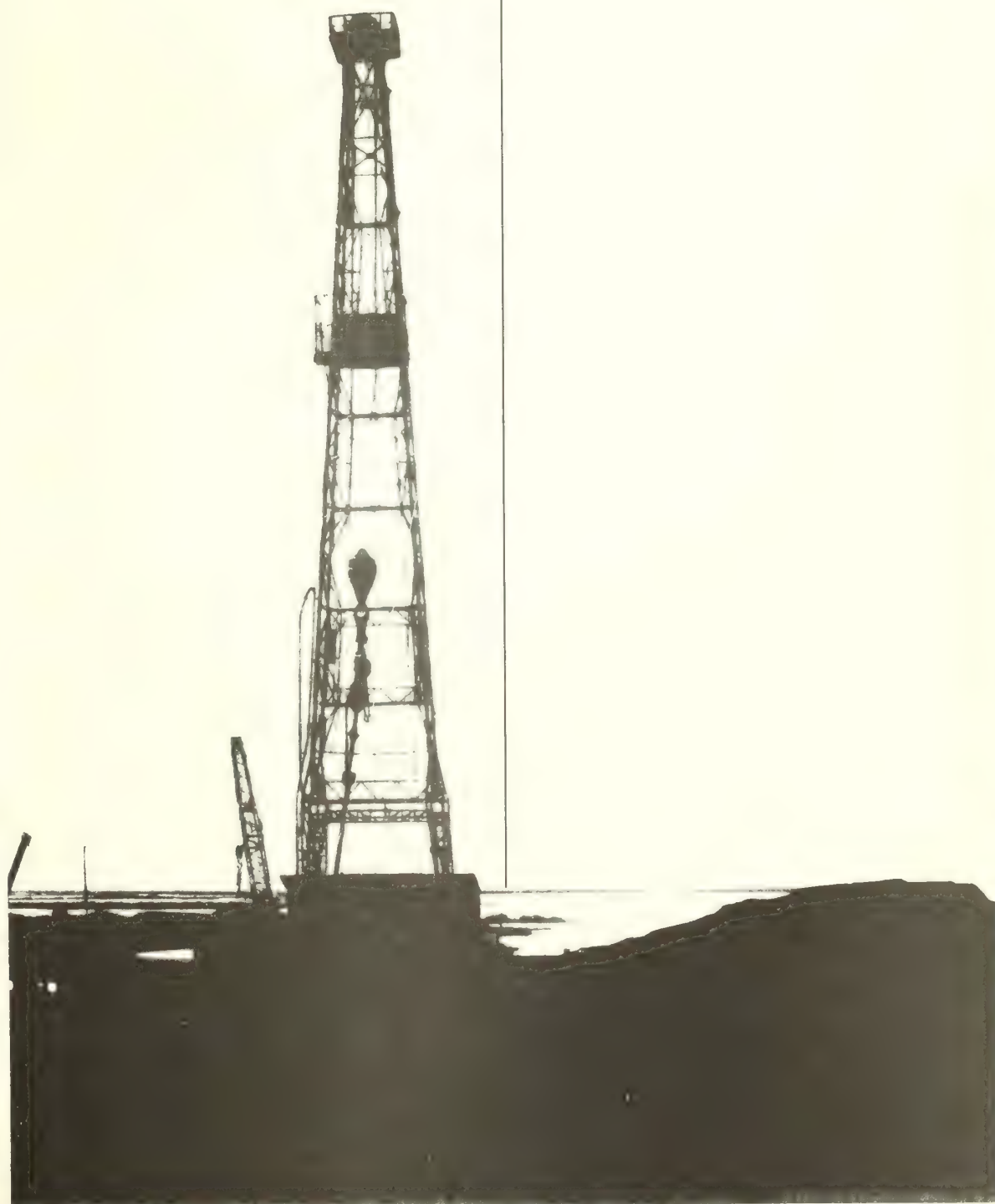
Many refineries, in addition to processing crude oil, use a wide range of liquids recovered from natural gas as raw materials. Although some of these liquids, particularly the heavier ones, go through distillation and "downstream" facilities at refineries, others are used in blending operations to produce lighter fuel products such as motor gasoline.





## Summary Statistics

1981 Statistics Contained In This Section Are Final. They have been extracted from the Petroleum Supply Annual which is scheduled to be released in July 1982.



# Crude Oil<sup>1</sup> and Petroleum Products Overview

		Field Production			Stock Withdrawal <sup>2</sup>			Ending Stocks <sup>3</sup>
		Total Domestic <sup>4</sup>	Crude Oil	Natural Gas Plant Production	Crude Oil <sup>5</sup>	Petroleum Products	Petroleum Products Supplied	Crude Oil <sup>5</sup> and Petroleum Products
								Millions of Barrels
Thousand Barrels per Day								
1973	AVERAGE	10,975	9,208	1,738	11	-146	17,308	1,008
1974	AVERAGE	10,498	8,774	1,688	-62	-117	16,653	1,074
1975	AVERAGE	10,045	8,375	1,633	-17	-145	16,322	1,133
1976	AVERAGE	9,774	8,132	1,603	-39	96	17,461	1,112
1977	AVERAGE	9,913	8,245	1,618	-170	-378	18,431	1,312
1978	AVERAGE	10,328	8,707	1,567	-78	172	18,847	1,278
1979	AVERAGE	10,179	8,552	1,584	-148	-25	18,513	1,341
1980	January	10,377	8,675	1,648	-594	270	18,851	1,351
	February	10,402	8,705	1,656	-292	563	18,817	1,343
	March	10,303	8,698	1,568	-47	-99	17,377	1,348
	April	10,356	8,685	1,630	-412	-229	16,784	1,367
	May	10,298	8,635	1,615	-117	-520	16,238	1,387
	June	10,164	8,554	1,561	65	-869	16,187	1,411
	July	10,113	8,547	1,524	88	-556	16,008	1,425
	August	9,974	8,414	1,519	-274	-473	15,753	1,449
	September	10,184	8,619	1,515	307	-259	16,598	1,447
	October	10,092	8,532	1,516	-191	756	16,995	1,430
	November	10,109	8,495	1,571	-8	-84	16,702	1,432
	December	10,204	8,606	1,560	304	993	18,410	1,392
		AVERAGE	10,214	8,597	1,573	-98	-42	17,056
1981	January	10,231	8,540	1,652	50	1,159	18,430	1,388
	February	10,294	8,604	1,653	-278	250	16,989	1,389
	March	10,272	8,613	1,624	-632	224	15,907	1,401
	April	10,195	8,557	1,599	-595	148	15,350	1,415
	May	10,160	8,501	1,593	-391	-374	15,353	1,438
	June	10,287	8,629	1,594	-135	406	16,095	1,430
	July	10,098	8,500	1,548	-360	91	15,682	1,439
	August	10,243	8,583	1,614	397	-999	15,263	1,457
	September	10,281	8,604	1,612	-285	-341	15,655	1,476
	October	10,225	8,563	1,598	-760	477	15,822	1,485
	November	10,269	8,586	1,630	-325	-233	15,593	1,501
	December	10,220	8,585	1,590	-170	745	16,596	1,484
		AVERAGE	10,230	8,572	1,609	-290	130	16,058
1982	January	10,257	8,669	1,548	-236	1,129	15,890	1,461
	February	10,261	8,690	1,524	-216	1,268	15,941	1,431
	March	10,212	8,597	1,570	-65	1,049	15,560	1,401
	April*	10,296	R 8,652	1,588	R107	R1,594	R16,048	R1,350
	May**	NA	8,688	NA	117	102	14,789	1,352
		AVERAGE	NA	8,659	NA	-57	1,021	15,638

<sup>1</sup> Includes lease condensate.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>3</sup> Ending stocks for 1973-1979 are totals as of December 31.

<sup>4</sup> Includes crude oil, natural gas plant production, other hydrocarbons and alcohol.

<sup>5</sup> Includes stocks located in the Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

\* See Explanatory Note 5.1.

\*\* Preliminary statistics. See Explanatory Note 2.7.

Note: Beginning in January 1975, the Bureau of Mines, Dept. of Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Crude Oil<sup>1</sup> and Petroleum Products Overview ( continued )

		Imports <sup>2</sup>			Exports <sup>3</sup>			
		Total	Crude Oil <sup>4</sup>	Petroleum Products	Total	Crude Oil	Petroleum Products	
Thousand Barrels per Day								
1973	AVERAGE	6,256	3,244	3,012	231	2	229	6,025
1974	AVERAGE	6,112	3,477	2,635	221	3	218	5,892
1975	AVERAGE	6,056	4,105	1,951	209	6	204	5,846
1976	AVERAGE	7,313	5,287	2,026	223	8	215	7,090
1977	AVERAGE	8,807	6,615	2,193	243	50	193	8,565
1978	AVERAGE	8,363	6,356	2,008	362	158	204	8,002
1979	AVERAGE	8,456	6,519	1,937	472	235	237	7,984
1980	January	8,598	6,406	2,192	550	322	228	8,048
	February	7,945	6,013	1,931	558	332	227	7,386
	March	7,452	5,695	1,757	573	330	243	6,879
	April	7,106	5,598	1,508	434	192	241	6,672
	May	6,579	5,106	1,472	591	326	266	5,987
	June	6,894	5,480	1,414	654	365	289	6,240
	July	6,257	4,843	1,414	531	238	293	5,727
	August	6,192	4,803	1,389	319	78	241	5,873
	September	6,239	4,707	1,532	557	322	235	5,682
	October	6,379	4,768	1,611	598	309	288	5,781
	November	6,408	4,680	1,728	549	289	260	5,858
	December	6,894	5,082	1,812	622	343	279	6,272
		AVERAGE	6,909	5,263	1,646	544	287	258
1981	January	6,827	4,932	1,895	558	339	219	6,270
	February	6,772	4,873	1,899	569	198	371	6,203
	March	6,028	4,521	1,507	586	210	376	5,442
	April	5,668	4,338	1,330	570	198	372	5,098
	May	5,775	4,287	1,489	595	312	283	5,180
	June	5,435	4,061	1,375	420	123	297	5,015
	July	5,816	4,296	1,521	571	257	314	5,245
	August	5,767	4,179	1,588	644	204	440	5,123
	September	6,365	4,740	1,624	519	194	325	5,845
	October	5,959	4,380	1,579	738	226	512	5,221
	November	5,741	4,046	1,695	701	278	423	5,041
	December	5,843	4,137	1,706	656	189	467	5,187
		AVERAGE	5,996	4,396	1,599	595	228	367
1982	January	5,232	3,648	1,585	829	238	591	4,404
	February	4,691	2,949	1,742	804	304	499	3,887
	March	4,461	2,856	1,606	882	321	561	3,579
	April*	R 4,286	R 2,813	R 1,474	786	174	611	3,501
	May**	4,446	3,222	1,224	NA	NA	NA	NA
		AVERAGE	4,624	3,102	1,522	NA	NA	NA

<sup>1</sup> Includes lease condensate.

<sup>2</sup> Includes shipments from United States possessions and territories.

<sup>3</sup> Includes shipments to United States possessions and territories.

<sup>4</sup> Includes crude oil for storage in the Strategic Petroleum Reserve.

<sup>5</sup> Net Imports = Imports minus Exports.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

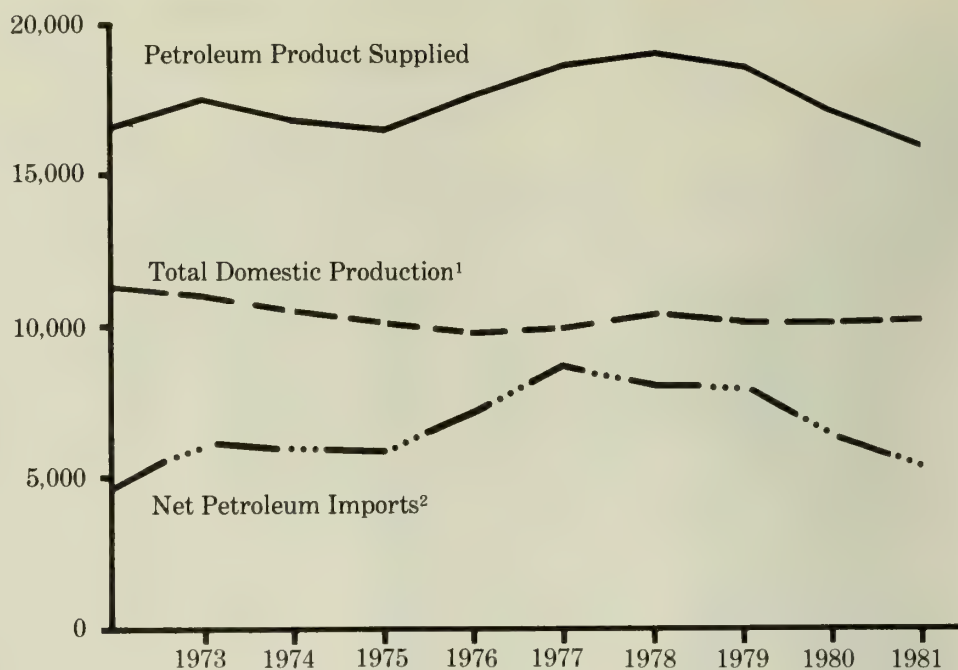
\* See Explanatory Note 5.1.

\*\* Preliminary Statistics. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

## Petroleum Overview, Annual (Thousand Barrels per Day)



<sup>1</sup>Includes crude oil and natural gas plant production.

<sup>2</sup>Includes SPR imports.

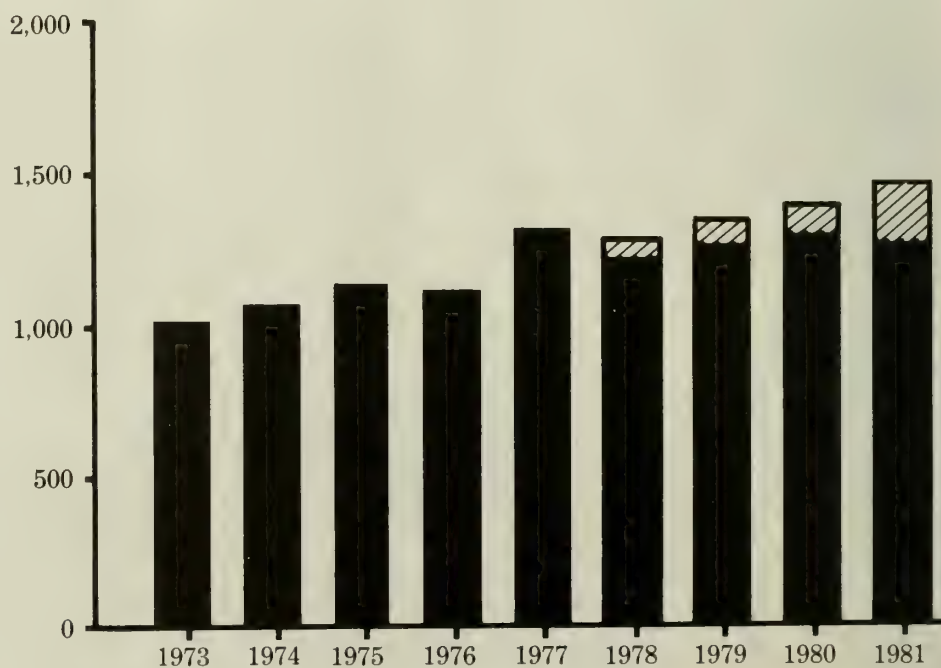
Source table: "Crude Oil and Petroleum Products Overview."

## Crude Oil and Petroleum Products Ending Stocks, Annual (Millions of Barrels)

### Legend

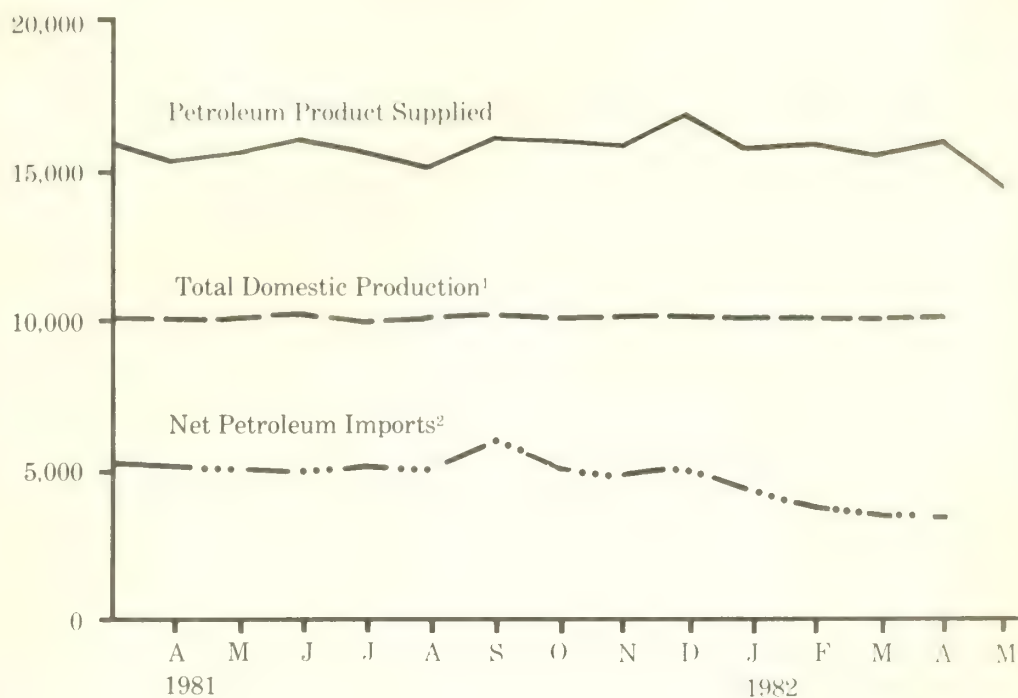
▨ SPR Crude Oil

■ Crude Oil and Petroleum Products, Excluding SPR



Source tables: "Crude Oil and Petroleum Products Overview" and "Crude Oil Supply and Disposition."

## Petroleum Overview, Monthly (Thousand Barrels per Day)



<sup>1</sup>Includes crude oil and natural gas plant production.

<sup>2</sup>Includes SPR imports.

**Source table:** "Crude Oil and Petroleum Products Overview."

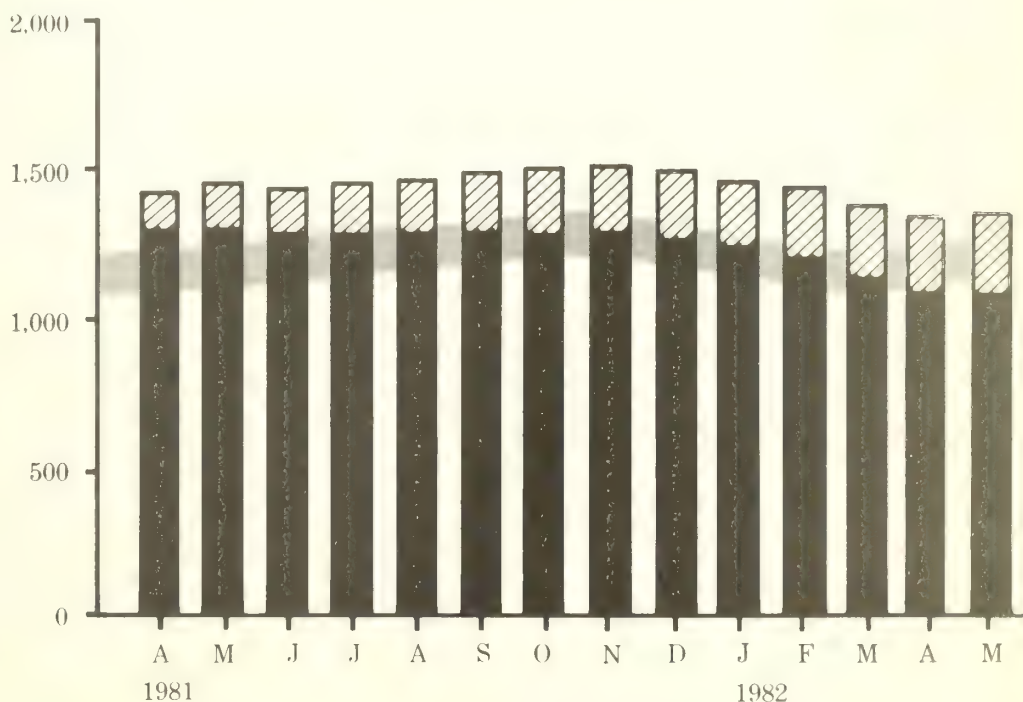
## Crude Oil and Petroleum Product Ending Stocks, Monthly (Millions of Barrels)

### Legend

▨ SPR Crude Oil

■ Crude Oil and Petroleum Products, Excluding SPR

▤ Average Stock Range<sup>1</sup>



<sup>1</sup>Average stock range (excluding SPR) based on 3 years of data. See Explanatory Note 2.5.

**Source tables:** "Crude Oil and Petroleum Products Overview" and "Crude Oil Supply and Disposition."

# Crude Oil<sup>1</sup> Supply and Disposition

		Supply						
		Field Production		Imports <sup>2</sup>			Stock Withdrawal <sup>3</sup>	
		Total Domestic	Alaskan	Total	SPR <sup>4</sup>	Other	SPR <sup>4</sup>	Other
		Thousand Barrels per Day						
1973	AVERAGE	9,208	198	3,244		3,244		11
1974	AVERAGE	8,774	193	3,477		3,477		-62
1975	AVERAGE	8,375	191	4,105		4,105		-17
1976	AVERAGE	8,132	173	5,287		5,287		-39
1977	AVERAGE	8,245	464	6,615	21	6,594	-20	-150
1978	AVERAGE	8,707	1,229	6,356	162	6,195	-163	84
1979	AVERAGE	8,552	1,401	6,519	67	6,452	-67	-81
1980	January	8,675	1,634	6,406	0	6,406	0	-594
	February	8,705	1,630	6,013	0	6,013	0	-292
	March	8,698	1,647	5,695	0	5,695	0	-47
	April	8,685	1,649	5,598	0	5,598	0	-412
	May	8,635	1,627	5,106	0	5,106	0	-117
	June	8,554	1,626	5,480	0	5,480	0	65
	July	8,547	1,612	4,843	0	4,843	0	88
	August	8,414	1,612	4,803	0	4,803	0	-274
	September	8,619	1,610	4,707	54	4,653	-54	361
	October	8,532	1,588	4,768	131	4,637	-123	-68
	November	8,495	1,561	4,680	142	4,538	-189	181
	December	8,606	1,602	5,082	198	4,884	-177	481
	AVERAGE	8,597	1,617	5,263	44	5,219	-45	-52
1981	January	8,540	1,606	4,932	106	4,826	-151	201
	February	8,604	1,619	4,873	80	4,793	-127	-150
	March	8,613	1,618	4,521	140	4,382	-155	-477
	April	8,557	1,608	4,338	272	4,066	-444	-151
	May	8,501	1,580	4,287	386	3,901	-513	122
	June	8,629	1,632	4,061	318	3,743	-434	299
	July	8,500	1,605	4,296	175	4,121	-324	-36
	August	8,583	1,602	4,179	257	3,922	-372	769
	September	8,604	1,607	4,740	435	4,305	-486	201
	October	8,563	1,596	4,380	453	3,927	-501	-259
	November	8,586	1,614	4,046	271	3,774	-259	-66
	December	8,585	1,623	4,137	165	3,971	-252	82
	AVERAGE	8,572	1,609	4,396	256	4,141	-336	46
1982	January	8,669	1,712	3,648	170	3,478	-159	-77
	February	8,690	1,715	2,949	159	2,790	-213	-3
	March	8,597	1,702	2,856	185	2,671	-235	170
	April*	R 8,652	R 1,687	R 2,813	R 190	R 2,623	R -233	R 341
	May**	8,688	1,702	3,222	198	3,024	-204	320
	AVERAGE	8,659	1,703	3,102	181	2,921	-209	152

<sup>1</sup> Includes lease condensate.

<sup>2</sup> Includes shipments from United States possessions and territories.

<sup>3</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>4</sup> Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

\* See Explanatory Note 5.2.

\*\* Preliminary statistics. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Crude Oil<sup>1</sup> Supply and Disposition ( continued )

		Supply (Continued)		Disposition		Ending Stocks <sup>2</sup>		
		Unac- counted for Crude Oil	Crude Used Directly and Losses	Refinery Inputs	Exports <sup>3</sup>	Total Crude Oil	SPR <sup>4</sup>	Other Primary
		Thousand Barrels per Day				Millions of Barrels		
1973	AVERAGE	3	-32	12,431	2	242		242
1974	AVERAGE	-25	-28	12,133	3	265		265
1975	AVERAGE	17	-30	12,442	6	271		271
1976	AVERAGE	77	-33	13,416	8	285		285
1977	AVERAGE	-6	-30	14,602	50	348	7	340
1978	AVERAGE	-57	-30	14,739	158	376	67	309
1979	AVERAGE	-11	-29	14,648	235	430	91	339
1980	January	166	-31	14,301	322	449	91	358
	February	124	-31	14,187	332	457	91	366
	March	-278	-30	13,709	330	459	91	367
	April	-165	-29	13,484	192	471	91	380
	May	55	-28	13,326	326	475	91	383
	June	1	-30	13,705	365	473	91	381
	July	52	-29	13,264	238	470	91	379
	August	147	-28	12,984	78	478	91	387
	September	27	-26	13,313	322	469	93	376
	October	-3	-25	12,772	309	475	97	379
	November	266	-26	13,119	289	475	102	373
	December	24	-26	13,648	343	466	108	358
	AVERAGE	34	-28	13,481	287			
1981	January	113	-49	13,247	339	486	112	374
	February	-41	-58	12,902	198	494	116	378
	March	154	-63	12,383	210	514	121	393
	April	51	-62	12,091	198	532	134	397
	May	286	-62	12,309	312	544	150	394
	June	49	-65	12,415	123	548	163	385
	July	147	-65	12,261	257	559	173	386
	August	16	-63	12,908	204	547	185	362
	September	-295	-65	12,505	194	555	199	356
	October	166	-66	12,057	226	579	215	364
	November	279	-68	12,240	278	589	223	366
	December	52	-67	12,349	189	594	230	363
	AVERAGE	83	-63	12,470	228			
1982	January	-138	-66	11,638	238	606	235	371
	February	199	-66	11,252	304	612	241	371
	March	278	-68	11,277	321	614	249	366
	April*	56	-68	R 11,386	174	R 611	R 256	R 355
	May**	NA	NA	11,804	NA	619	261	359
	AVERAGE	NA	NA	11,476	NA			

<sup>1</sup> Includes lease condensate.

<sup>2</sup> Ending stocks for 1973-1979 are totals as of December 31.

<sup>3</sup> Includes shipments to United States possessions and territories.

<sup>4</sup> Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

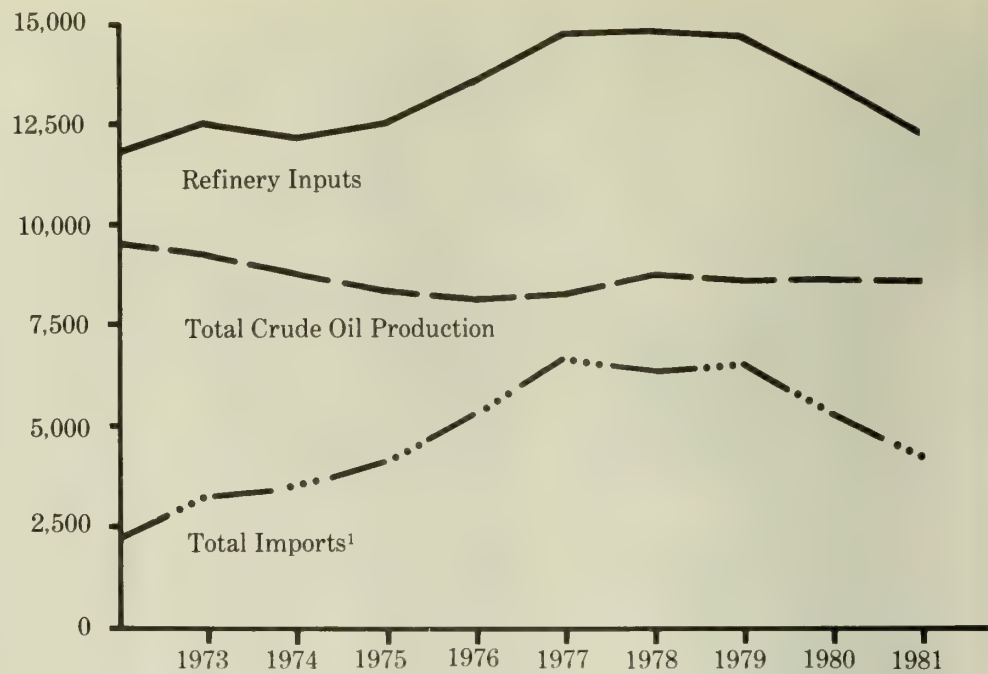
\* See Explanatory Note 5.2.

\*\* Preliminary statistics. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

### Crude Oil Supply and Disposition, Annual (Thousand Barrels per Day)



¹Includes SPR imports.

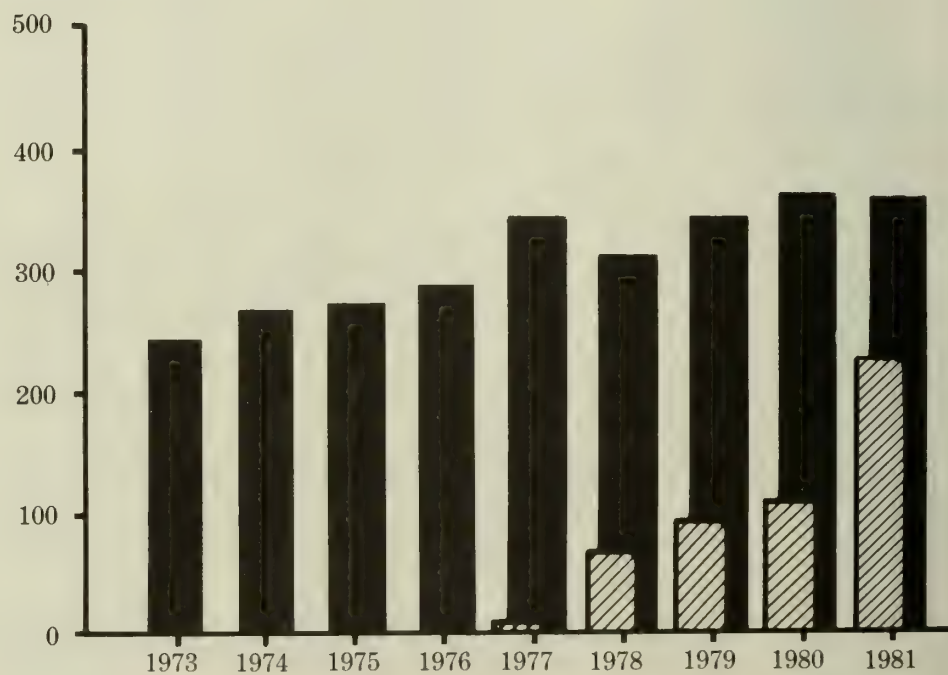
Source table: "Crude Oil Supply and Disposition."

### Crude Oil Ending Stocks, Annual (Millions of Barrels)

#### Legend

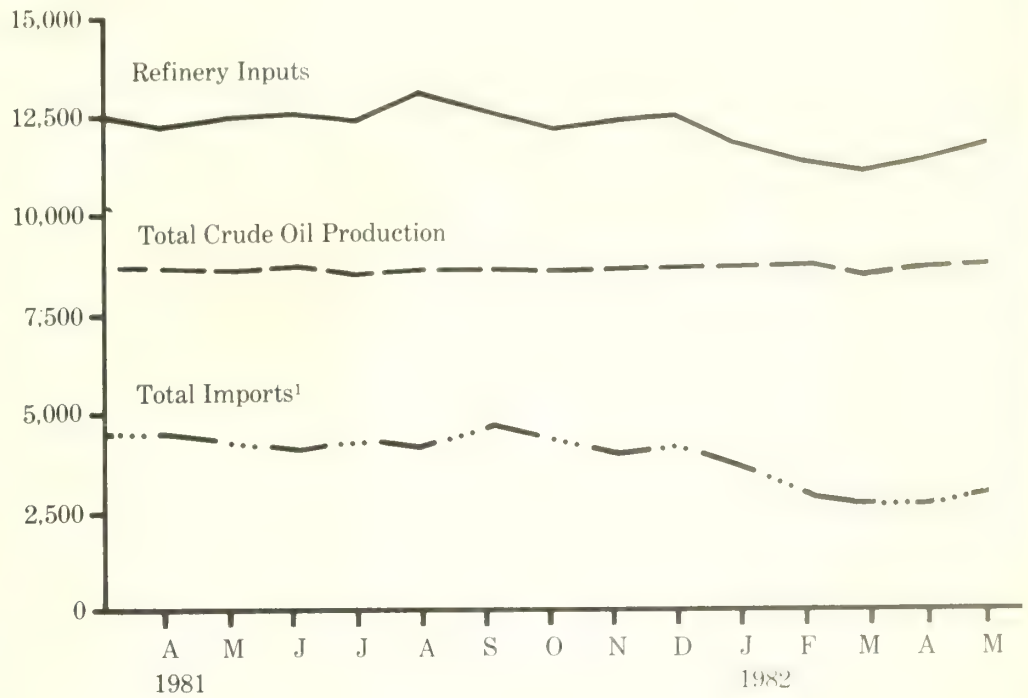
▨ SPR

■ Other Primary



Source table: "Crude Oil Supply and Disposition."

### Crude Oil Supply and Disposition, Monthly (Thousand Barrels per Day)



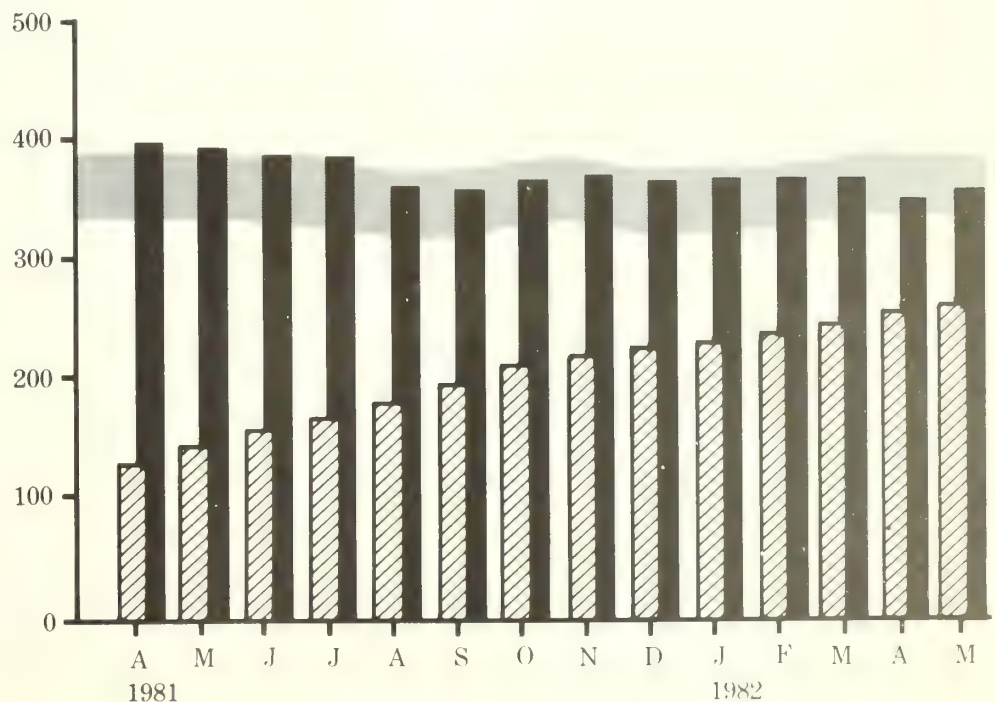
¹Includes SPR imports.

Source table: "Crude Oil Supply and Disposition."

### Crude Oil Ending Stocks, Monthly (Millions of Barrels)

#### Legend

- ▨ SPR
- Other Primary
- Average Stock Range¹



¹Average stock range (excluding SPR) based on 3 years of data. See Explanatory Note 2.5.

Source table: "Crude Oil Supply and Disposition."

# Finished Motor Gasoline Supply and Disposition

		Supply			Disposition				Ending Stocks <sup>1</sup>	
		Total Produc- tion	Imports <sup>2</sup>	Stock With- drawal <sup>2 3</sup>	Exports	Product Supplied			Total Motor Gasoline <sup>4</sup>	Finished Motor Gasoline
						Total	Unleaded <sup>5</sup>	Unleaded		
Thousand Barrels per Day								Percent of Total	Millions of Barrels	
1973	AVERAGE	6,535	134	9	4	6,674	NA	NA	209	
1974	AVERAGE	6,360	204	-24	2	6,537	NA	NA	218	
1975	AVERAGE	6,520	184	-28	2	6,675	NA	NA	235	
1976	AVERAGE	6,841	131	10	3	6,978	NA	NA	231	
1977	AVERAGE	7,033	217	-72	2	7,177	1,976	27.5	258	
1978	AVERAGE	7,169	190	54	1	7,412	2,521	34.0	238	
1979	AVERAGE	6,852	181	2	(s)	7,034	2,798	39.8	237	
1980	January	6,991	141	-809	1	6,323	2,718	43.0	262	
	February	6,866	154	-423	(s)	6,596	2,969	45.0	275	
	March	6,519	155	-267	(s)	6,406	3,032	47.3	283	
	April	6,284	155	362	1	6,800	3,021	44.4	272	
	May	6,316	132	283	1	6,729	2,980	44.3	263	
	June	6,569	148	-59	1	6,657	3,099	46.6	265	
	July	6,465	149	-132	3	6,743	3,131	46.4	261	
	August	6,452	141	56	1	6,648	3,135	47.2	259	
	September	6,383	106	28	7	6,510	3,054	46.9	258	
	October	6,131	152	380	1	6,662	3,110	46.7	247	
	November	6,467	126	-359	(s)	6,234	3,123	50.1	257	
	December	6,644	121	-133	1	6,632	3,421	51.6	261	
		AVERAGE	6,506	140	-66	1	6,579	3,067	46.6	
1981	January	6,715	138	-421	(s)	6,431	3,141	48.8	276	227
	February	6,308	111	-118	1	6,301	3,095	49.1	284	230
	March	6,213	171	-81	(s)	6,303	3,097	49.1	285	232
	April	6,114	186	303	(s)	6,602	3,284	49.7	272	223
	May	6,122	150	344	1	6,615	3,115	47.1	259	213
	June	6,220	186	622	1	7,028	3,419	48.6	242	194
	July	6,405	151	268	(s)	6,823	3,424	50.2	228	186
	August	6,611	124	-95	3	6,637	3,344	50.4	233	189
	September	6,564	169	-70	2	6,662	3,338	50.1	237	191
	October	6,426	147	7	3	6,578	3,257	49.5	236	190
	November	6,564	148	-338	1	6,373	3,198	50.2	248	201
	December	6,586	197	-91	11	6,681	3,444	51.5	253	203
		AVERAGE	6,405	157	28	2	6,588	3,264	49.5	
1982	January	6,181	114	-358	18	5,920	3,033	51.2	262	214
	February	5,917	133	28	8	6,070	3,145	51.8	262	213
	March	6,004	183	469	44	6,612	3,396	51.4	248	199
	April*	R 6,104	177	641	33	R 6,890	3,494	50.7	R 223	180
	May**	6,090	NA	NA	NA	6,585	NA	NA	209	NA
		AVERAGE	6,062	NA	NA	NA	6419	NA	NA	

<sup>1</sup> Ending stocks for 1973-1979 are totals as of December 31.

<sup>2</sup> Beginning in 1981 excludes blending components.

<sup>3</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>4</sup> Includes motor gasoline blending components.

<sup>5</sup> Includes gasohol.

Totals may not equal sum of components due to independent rounding.

(s) = Less than 500 barrels. NA = Not available. R = Revised data.

\* See Explanatory Note 5.3.

\*\* Preliminary statistics. See Explanatory Note 2.7.

Notes: Beginning in January 1981, the Energy Information Administration modified survey forms, definitions, and processing procedures. See Explanatory Note 4 on Changes for the effects on motor gasoline statistics.

Beginning in January 1975, the Bureau of Mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks <sup>1</sup>
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Crude Used Directly	Exports	Product Supplied	
		Thousand Barrels per Day						
								Millions of Barrels
1973	AVERAGE	2,822	392	-115	2	9	3,092	196
1974	AVERAGE	2,669	289	-9	2	2	2,948	200
1975	AVERAGE	2,654	155	40	2	1	2,851	209
1976	AVERAGE	2,924	146	62	1	1	3,133	186
1977	AVERAGE	3,278	250	-176	1	1	3,352	250
1978	AVERAGE	3,167	173	93	1	3	3,432	216
1979	AVERAGE	3,153	193	-34	1	3	3,311	229
1980	January	3,014	179	526	1	7	3,714	212
	February	2,766	237	716	1	8	3,712	192
	March	2,558	193	445	1	19	3,179	178
	April	2,461	154	21	2	2	2,635	177
	May	2,474	126	-199	1	1	2,402	183
	June	2,647	108	-439	1	(s)	2,317	197
	July	2,690	117	-557	2	3	2,249	214
	August	2,462	77	-403	2	(s)	2,137	226
	September	2,686	101	-201	2	(s)	2,587	232
	October	2,590	115	215	1	(s)	2,920	226
	November	2,703	133	111	1	(s)	2,949	222
	December	2,891	166	556	1	(s)	3,615	205
	AVERAGE	2,662	142	64	1	3	2,866	
1981	January	2,989	273	836	11	(s)	4,109	179
	February	2,809	325	246	11	17	3,373	173
	March	2,484	147	264	9	(s)	2,904	164
	April	2,418	116	-9	10	3	2,532	165
	May	2,454	179	-232	10	(s)	2,411	172
	June	2,501	225	-270	9	(s)	2,464	180
	July	2,395	179	-204	10	2	2,378	186
	August	2,656	174	-450	8	(s)	2,388	200
	September	2,610	129	-235	10	1	2,513	207
	October	2,485	119	197	9	5	2,803	201
	November	2,716	124	36	11	6	2,880	200
	December	2,856	95	277	11	26	3,212	192
	AVERAGE	2,613	173	38	10	5	2,829	
1982	January	2,615	96	780	10	90	3,410	166
	February	2,447	130	689	11	90	3,187	147
	March	2,294	48	612	10	84	2,881	128
	April*	R 2,357	R 59	R 631	13	64	R 2,996	R 109
	May**	2,633	82	-60	NA	NA	2,605	108
	AVERAGE	2,470	82	527	NA	NA	3013	

<sup>1</sup> Ending stocks for 1973 - 1979 are totals as of December 31.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

Totals may not equal sum of components due to independent rounding.

(s) = Less than 500 barrels per day. NA = Not available. R = Revised data.

\* See Explanatory Note 5.4.

\*\* Preliminary Statistics. See Explanatory Note 2.7.

Notes: Beginning in January 1981, the Energy Information Administration modified survey forms, definitions, and processing procedures.

See Explanatory Note 4 on changes for the effects on residual fuel oil statistics.

Beginning in January 1975, The Bureau of Mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic Coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

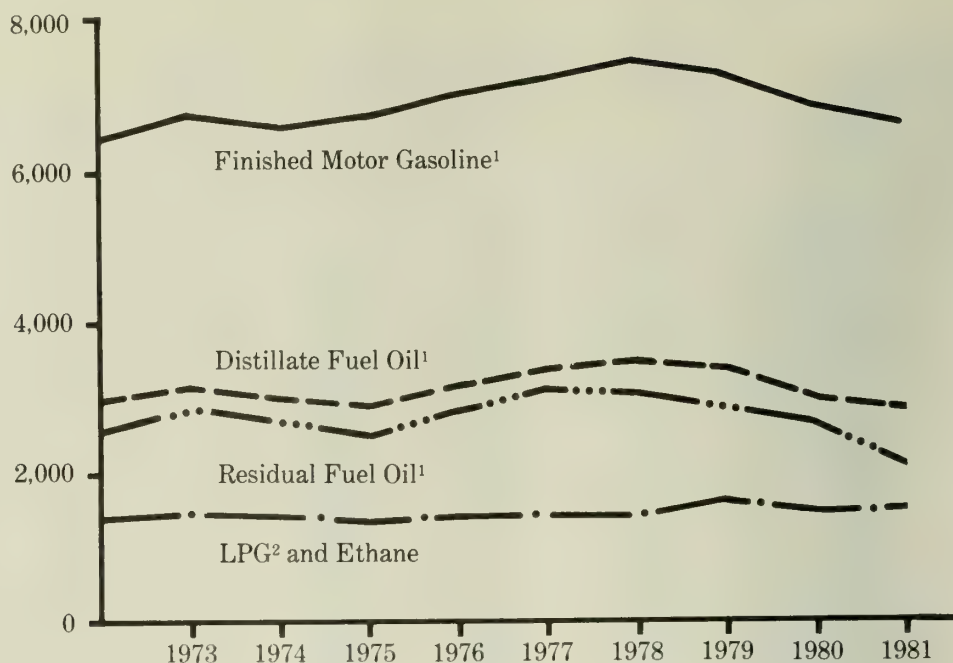
Sources: See "Sources" at the end of this section.

<sup>1</sup>Figures for 1979 and 1980 recast to account for data system changes in 1981. See Explanatory Note 4.

<sup>2</sup>Liquefied Petroleum Gases.

**Source tables:** "Finished Motor Gasoline Supply and Disposition," "Distillate Fuel Oil Supply and Disposition," "Residual Fuel Oil Supply and Disposition," "Liquefied Petroleum Gases and Ethane Supply and Disposition."

## Products Supplied, Annual (Thousand Barrels per Day)



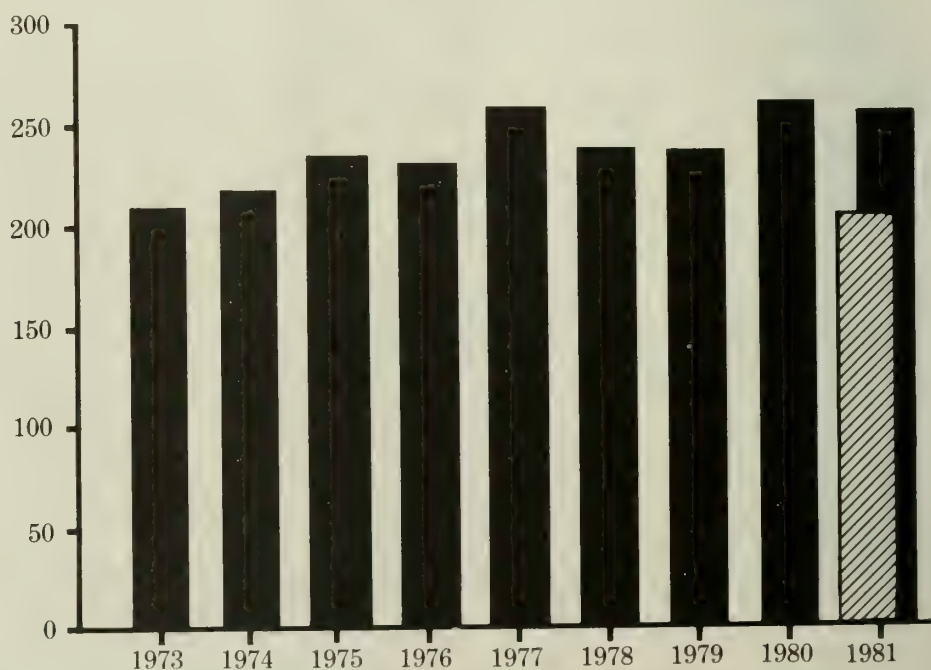
## Motor Gasoline<sup>1</sup> Ending Stocks, Annual (Millions of Barrels)

### Legend

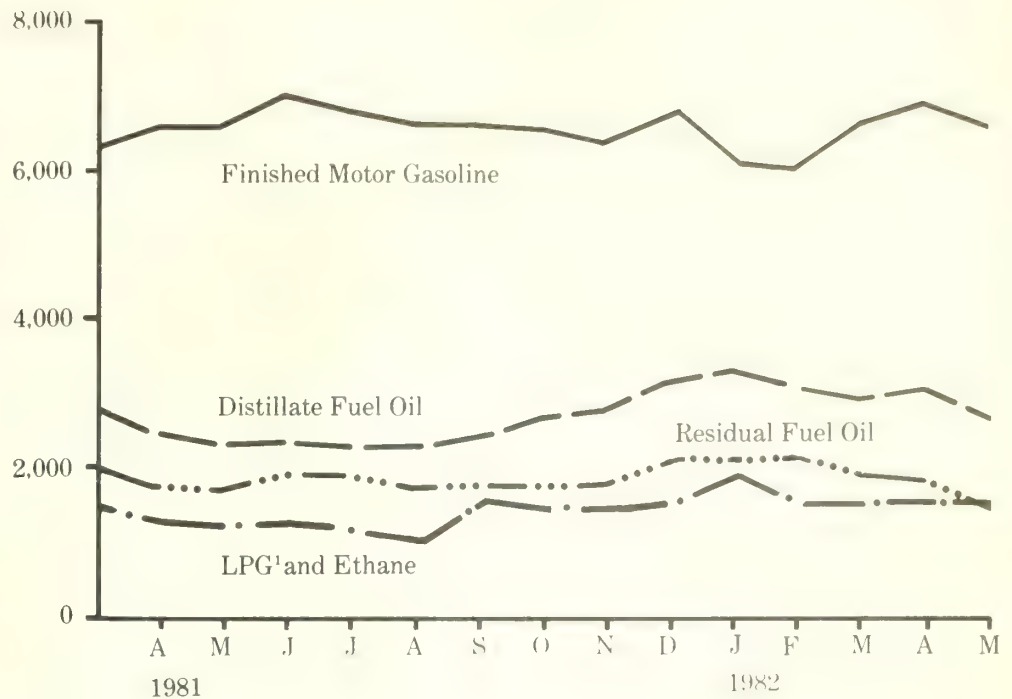
- Total
- ▨ Finished

<sup>1</sup>Includes finished motor gasoline blending components.

**Source table:** "Finished Motor Gasoline Supply and Disposition."



## Products Supplied, Monthly (Thousand Barrels per Day)



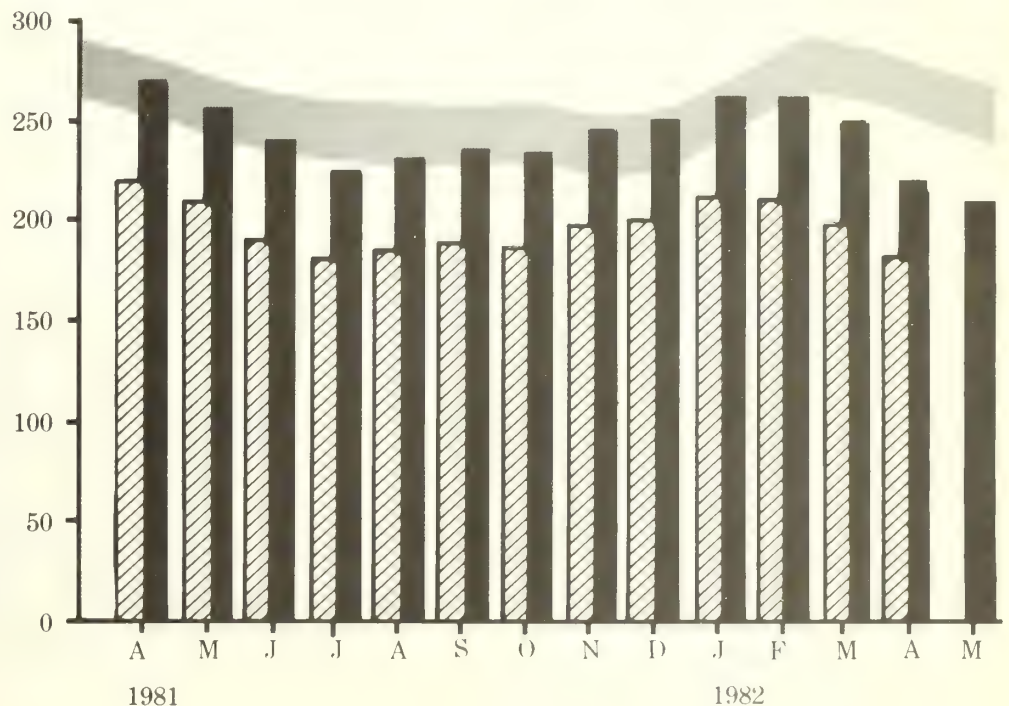
<sup>1</sup>Liquefied Petroleum Gases.

Source tables: "Finished Motor Gasoline Supply and Disposition," "Distillate Fuel Oil Supply and Disposition," "Residual Fuel Oil Supply and Disposition," "Liquefied Petroleum Gases and Ethane Supply and Disposition."

## Motor Gasoline Ending Stocks, Monthly (Millions of Barrels)

### Legend

- Total Motor Gasoline<sup>1</sup>
- ▨ Finished Motor Gasoline
- Average Stock Range<sup>2</sup>

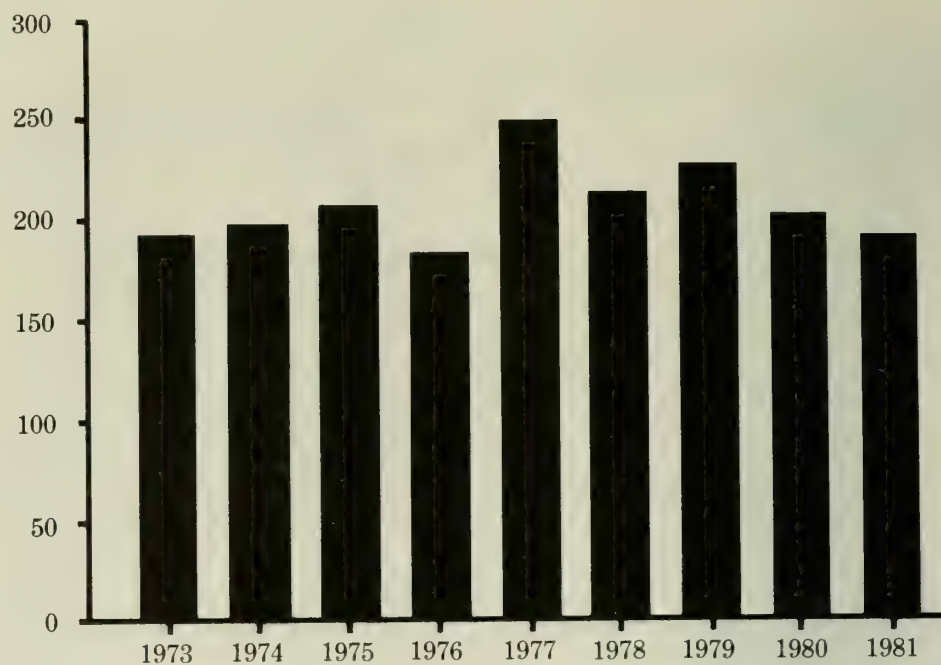


<sup>1</sup>Includes finished motor gasoline blending components.

<sup>2</sup>Average stock range for total motor gasoline based on 3 years of data. See Explanatory Note 2.5.

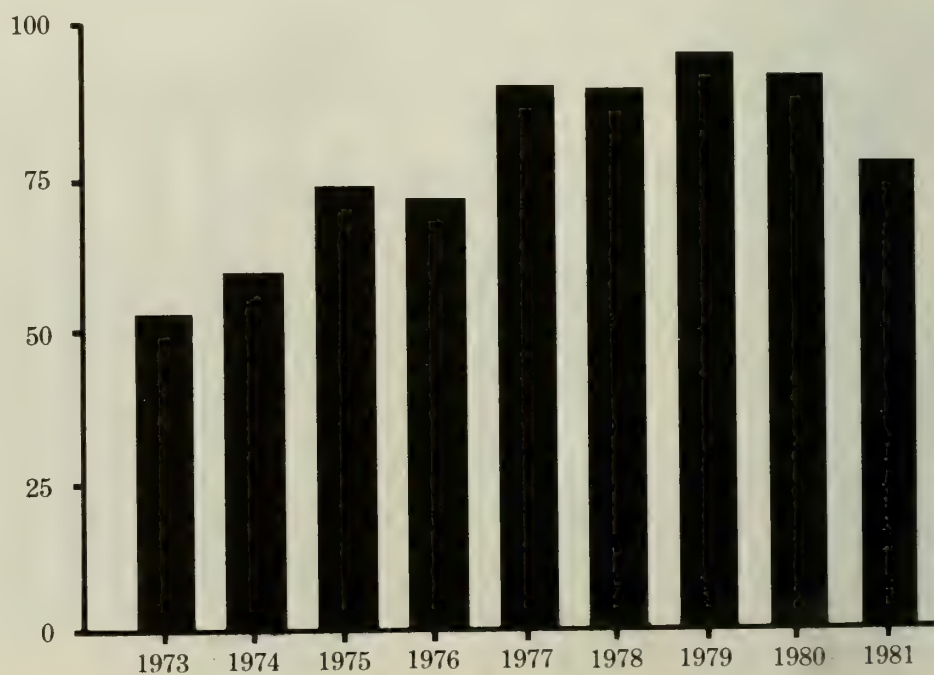
Source table: "Finished Motor Gasoline Supply and Disposition."

### Distillate Fuel Oil Ending Stocks, Annual (Millions of Barrels)



Source table: "Distillate Fuel Oil Supply and Disposition."

### Residual Fuel Oil Ending Stocks, Annual (Millions of Barrels)

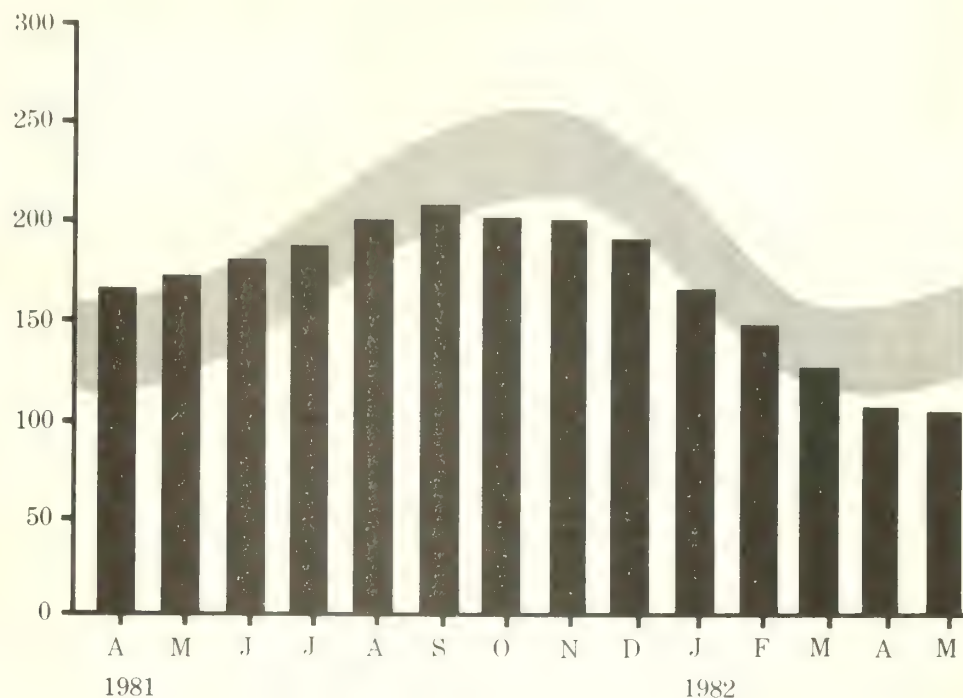


Source table: "Residual Fuel Oil Supply and Disposition."

### Distillate Fuel Oil Ending Stocks, Monthly (Millions of Barrels)

#### Legend

■ Average Stock Range<sup>1</sup>



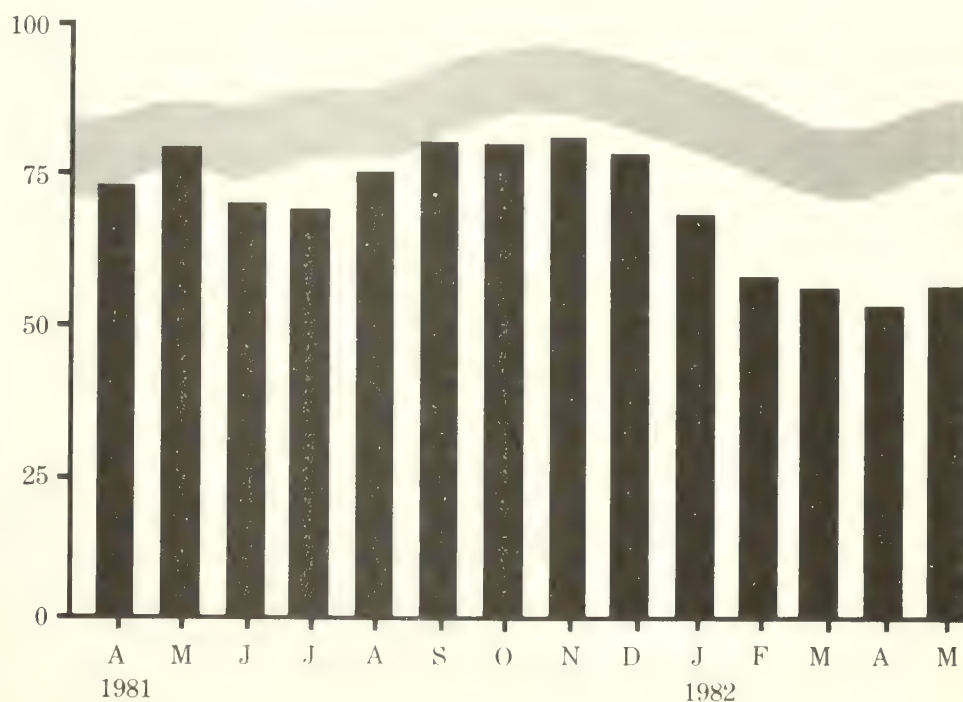
<sup>1</sup>Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Distillate Fuel Oil Supply and Disposition."

### Residual Fuel Oil Ending Stocks, Monthly (Millions of Barrels)

#### Legend

■ Average Stock Range<sup>1</sup>



<sup>1</sup>Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Residual Fuel Oil Supply and Disposition."

# Residual Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks <sup>1</sup>
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Crude Used Directly	Exports	Products Supplied	
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	971	1,853	5	17	23	2,822	53
1974	AVERAGE	1,070	1,587	-17	13	14	2,639	60
1975	AVERAGE	1,235	1,223	2	15	15	2,462	74
1976	AVERAGE	1,377	1,413	5	17	12	2,801	72
1977	AVERAGE	1,754	1,359	-48	13	8	3,071	90
1978	AVERAGE	1,667	1,355	-1	13	13	3,023	90
1979	AVERAGE	1,687	1,151	-15	12	9	2,826	96
1980	January	1,771	1,338	-51	14	5	3,067	97
	February	1,773	1,122	214	14	17	3,105	91
	March	1,584	976	87	14	2	2,658	88
	April	1,595	775	102	13	40	2,444	85
	May	1,509	812	-78	12	20	2,235	88
	June	1,575	749	-4	14	14	2,321	88
	July	1,480	787	71	13	60	2,291	86
	August	1,444	875	-43	13	2	2,286	87
	September	1,495	906	-31	10	21	2,359	88
	October	1,512	875	-100	9	70	2,227	91
	November	1,579	1,024	-74	10	88	2,451	93
	December	1,660	1,025	46	10	62	2,679	92
	AVERAGE	1,580	939	10	12	33	2,508	
1981	January	1,612	1,015	302	32	65	2,896	82
	February	1,565	954	150	44	125	2,588	78
	March	1,424	699	100	48	145	2,126	75
	April	1,320	584	66	49	151	1,868	73
	May	1,223	741	-170	49	25	1,817	78
	June	1,232	540	291	49	76	2,037	69
	July	1,174	830	2	48	82	1,971	69
	August	1,231	819	-179	50	69	1,852	75
	September	1,292	841	-176	51	126	1,882	80
	October	1,238	786	8	54	202	1,884	80
	November	1,227	880	-49	53	203	1,909	81
	December	1,329	916	110	52	157	2,250	78
	AVERAGE	1,321	800	37	48	118	2,088	
1982	January	1,183	821	328	53	235	2,150	68
	February	1,136	928	358	53	213	2,261	58
	March	1,121	910	26	53	197	1,912	57
	April*	R 1,162	R 762	R 124	52	234	R 1,867	R 54
	May**	1,091	665	-106	NA	NA	1,469	57
	AVERAGE	1,138	815	142	NA	NA	1926	

<sup>1</sup> Ending Stocks for 1973-1979 are totals as of December 31.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease. Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

\* See Explanatory Note 5.4.

\*\* Preliminary Statistics. See Explanatory Note 2.7.

Note: Beginning in January 1981, the Energy Information Administration modified survey forms, definitions, and processing procedures. See Explanatory Note 4 on Changes for the effects on Distillate Fuel Oil statistics.

Beginning in January 1975, the Bureau of Mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Liquefied Petroleum Gases and Ethane Supply and Disposition

		Supply		Disposition			Ending Stocks <sup>1</sup>	
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Refinery Inputs	Exports	Product Supplied	Millions of Barrels
Thousand Barrels per Day								
1973	AVERAGE	1,600	132	-35	220	27	1,449	99
1974	AVERAGE	1,565	123	-38	220	25	1,406	113
1975	AVERAGE	1,527	112	-35	246	26	1,333	125
1976	AVERAGE	1,535	130	24	260	25	1,404	116
1977	AVERAGE	1,566	161	-55	233	18	1,422	136
1978	AVERAGE	1,537	123	12	239	20	1,413	132
1979	AVERAGE	1,556	217	70	236	15	1,592	111
1980	January	1,560	264	461	291	30	1,963	96
	February	1,581	252	209	252	26	1,764	90
	March	1,519	214	7	211	23	1,506	90
	April	1,546	186	-339	171	19	1,203	100
	May	1,538	181	-224	182	17	1,295	107
	June	1,528	184	-319	170	18	1,205	117
	July	1,485	172	-283	209	18	1,147	126
	August	1,507	158	-296	203	17	1,149	135
	September	1,495	213	-80	228	19	1,382	137
	October	1,546	249	86	259	24	1,597	134
	November	1,549	231	82	304	23	1,535	132
	December	1,567	289	373	319	23	1,888	120
		AVERAGE	1,535	216	-27	233	21	1,469
1981	January	1,617	306	363	352	21	1,913	117
	February	1,593	327	173	303	21	1,769	112
	March	1,551	260	-4	257	20	1,530	112
	April	1,586	214	-236	231	26	1,308	119
	May	1,587	189	-258	220	19	1,279	127
	June	1,567	206	-208	237	24	1,304	133
	July	1,507	213	-258	215	17	1,229	141
	August	1,592	195	-242	235	149	1,160	149
	September	1,622	199	-75	287	21	1,438	151
	October	1,593	287	72	320	76	1,556	149
	November	1,571	280	86	383	58	1,495	146
	December	1,468	255	379	428	50	1,624	135
		AVERAGE	1,571	244	-18	289	42	1,466
1982	January	1,546	314	480	398	67	1,873	122
	February	1,476	291	310	327	51	1,699	114
	March	1,523	223	145	289	74	1,528	109
	April*	1,566	188	107	257	77	1,527	106
		AVERAGE	1,529	253	261	318	68	1657

<sup>1</sup> Ending stocks for 1973 - 1979 are totals as of December 31.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

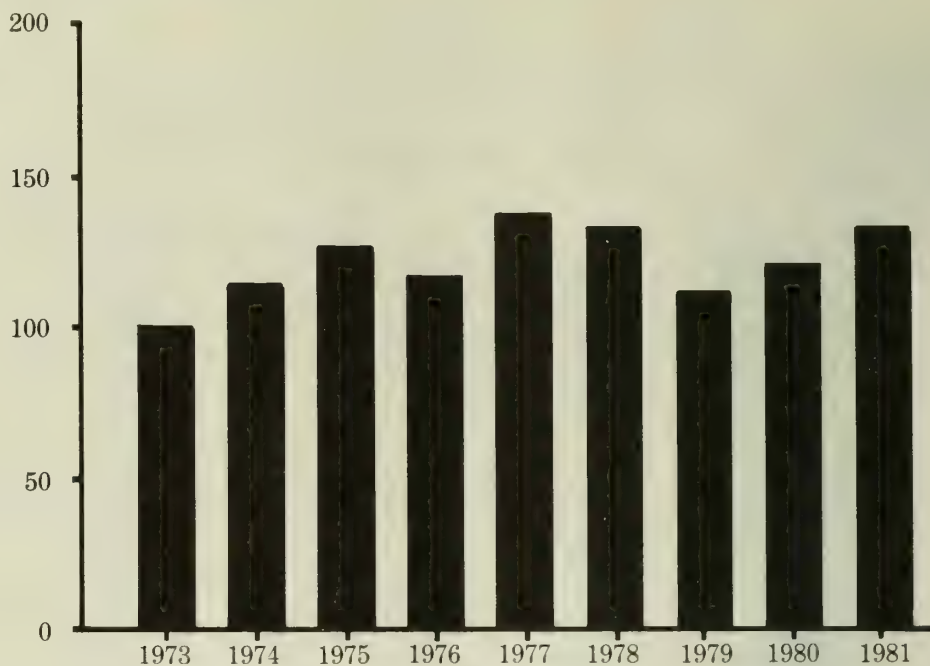
Totals may not equal sum of components due to independent rounding.

\* See Explanatory Note 5.5.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf excluding the Hawaiian Foreign Trade Zone.

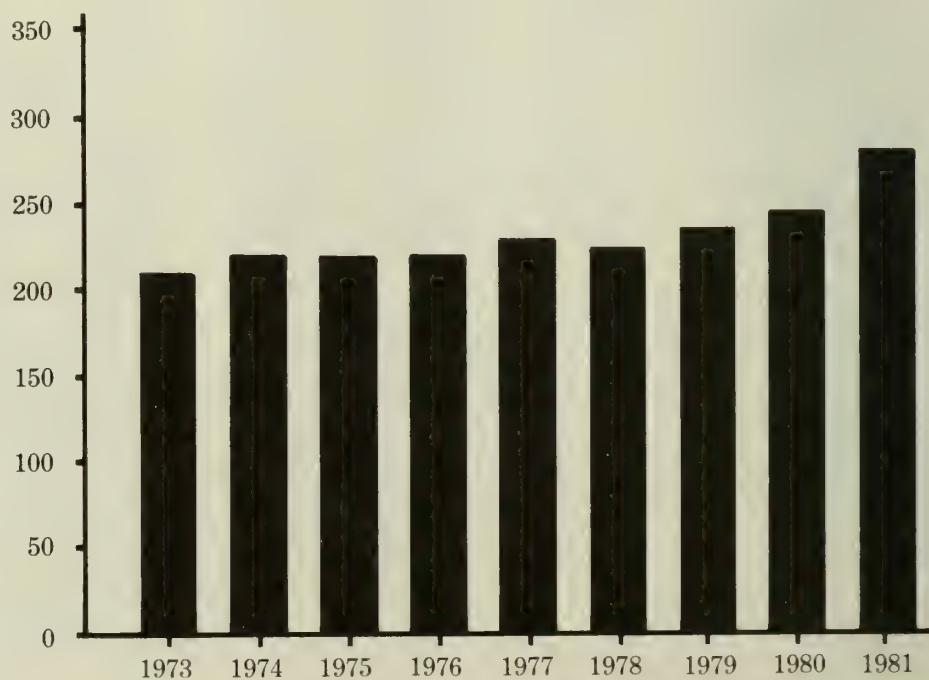
Sources: See "Sources" at the end of this section.

**Liquefied Petroleum Gases and Ethane Ending Stocks, Annual**  
(Millions of Barrels)



Source table: "Liquefied Petroleum Gases and Ethane Supply and Disposition."

**Other Petroleum Products<sup>1</sup> Ending Stocks, Annual**  
(Millions of Barrels)



<sup>1</sup>Includes natural gasoline and isopentane, unfinished oils, gasoline blending components, jet fuels, kerosene, lubricants, and asphalt. Some gasoline blending components not included prior to 1981.

Source table: "Other Petroleum Products Supply and Disposition."

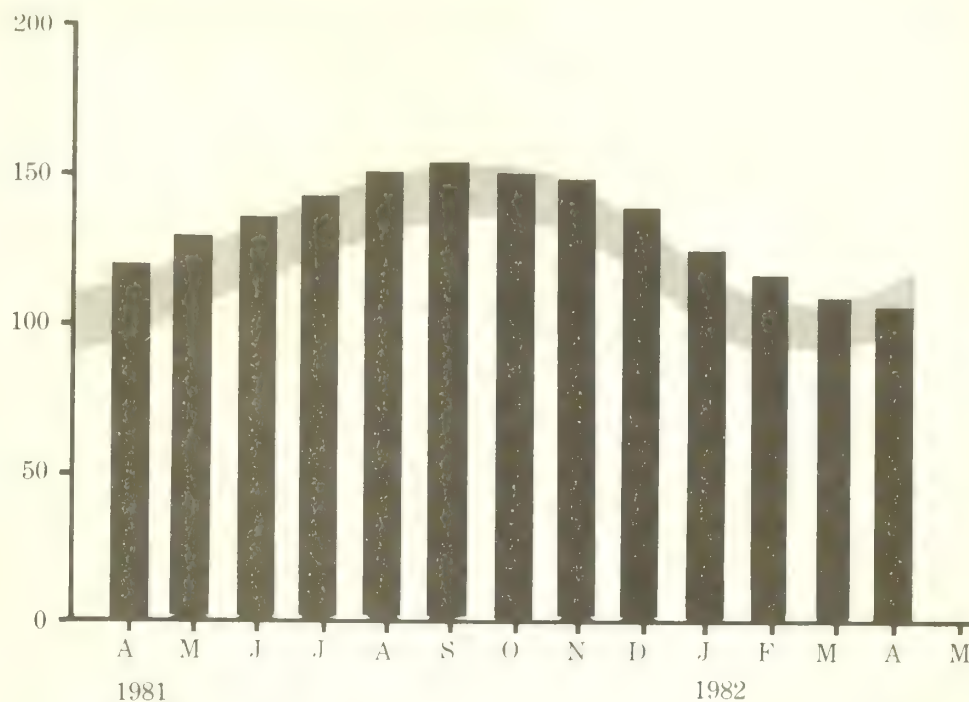
### Liquefied Petroleum Gases and Ethane Ending Stocks, Monthly (Millions of Barrels)

#### Legend

■ Average Stock Range<sup>1</sup>

<sup>1</sup>Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Liquefied Petroleum Gases and Ethane Supply and Disposition."



### Other Petroleum Products<sup>1</sup> Endings Stocks, Monthly (Millions of Barrels)

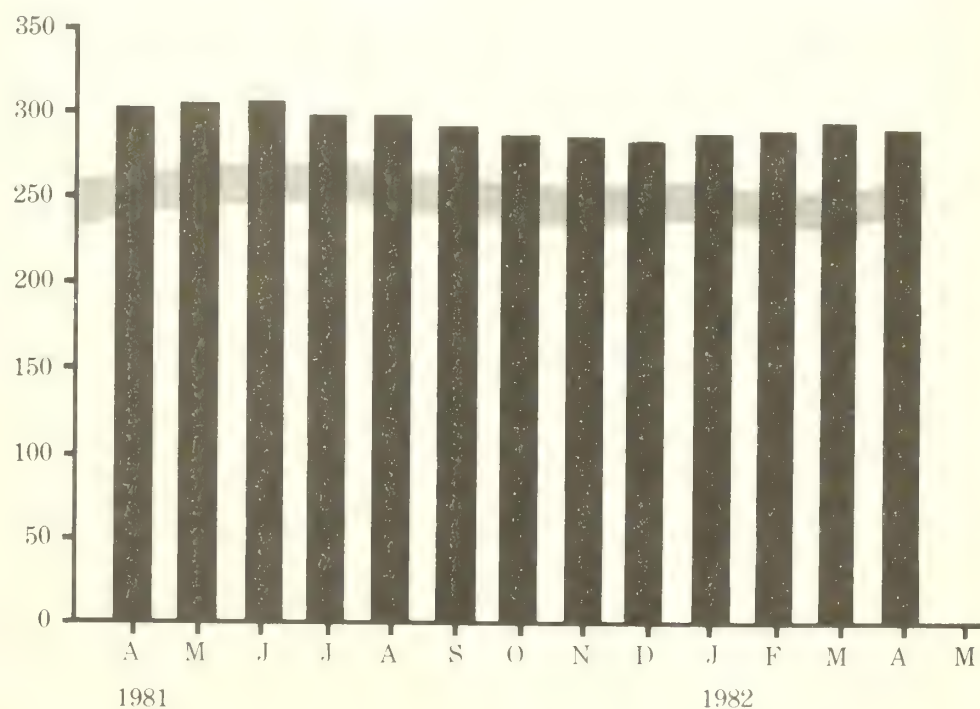
#### Legend

■ Average Stock Range<sup>2</sup>

<sup>1</sup>Includes natural gasoline and isopentane, unfinished oils, gasoline blending components, jet fuels, kerosene, lubricants, and asphalt.

<sup>2</sup>Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Other Petroleum Products Supply and Disposition."



# Other Petroleum Products<sup>1</sup> Supply and Disposition

		Supply			Disposition			Ending Stocks <sup>2</sup>
		Total Production	Imports	Stock Withdrawal <sup>3</sup>	Refinery Inputs	Exports	Products Supplied	
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	3,693	502	-9	750	166	3,270	208
1974	AVERAGE	3,558	432	-28	665	174	3,123	218
1975	AVERAGE	3,424	277	-2	537	160	3,002	219
1976	AVERAGE	3,643	206	-5	524	175	3,145	220
1977	AVERAGE	3,912	205	-27	514	165	3,410	230
1978	AVERAGE	4,046	166	14	492	167	3,568	225
1979	AVERAGE	4,153	195	-37	352	209	3,749	238
1980	January	4,157	269	135	591	186	3,785	234
	February	4,181	167	-153	380	174	3,641	239
	March	4,128	219	-370	149	200	3,627	250
	April	4,105	238	-374	86	180	3,703	261
	May	4,018	222	-301	135	227	3,577	271
	June	4,016	226	-49	250	256	3,687	272
	July	3,873	188	82	356	209	3,578	270
	August	3,753	138	212	351	221	3,532	263
	September	3,952	206	25	234	188	3,761	262
	October	3,737	220	175	351	193	3,588	257
	November	3,786	213	156	475	148	3,533	252
	December	3,792	209	151	362	194	3,596	247
	AVERAGE	3,956	210	-23	311	198	3,634	
1981	January	3,821	162	80	851	132	3,081	296
	February	3,723	182	-200	538	208	2,958	302
	March	3,722	230	-55	642	210	3,043	304
	April	3,711	230	24	733	192	3,040	303
	May	3,892	229	-58	594	238	3,231	305
	June	3,925	218	-29	656	197	3,261	306
	July	3,852	149	284	791	212	3,282	297
	August	3,876	276	-33	676	219	3,225	298
	September	3,718	285	215	883	176	3,159	291
	October	3,503	241	193	710	227	3,000	285
	November	3,579	262	33	784	154	2,935	284
	December	3,543	243	71	805	223	2,829	282
	AVERAGE	3,739	226	46	723	199	3,088	
1982	January	3,181	240	-102	602	180	2,536	284
	February	3,364	260	-116	646	138	2,724	287
	March	3,485	241	-204	734	161	2,627	294
	April*	3,394	287	91	801	204	2,767	291
	AVERAGE	3,355	257	-83	696	171	2661	

<sup>1</sup> Includes natural gasoline and isopentane, unfractionated stream, plant condensate, other liquids; and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil.

<sup>2</sup> Ending Stocks for 1973-1979 are totals as of December 31.

<sup>3</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease. Totals may not equal sum of components due to independent rounding.

\* See Explanatory Note 5.6.

Note: Beginning in January 1975, the Bureau of mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic Coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Crude Oil and Petroleum Product Imports from OPEC Sources

	Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC <sup>1</sup>	Total OPEC	Total Arab OPEC <sup>2</sup>
Thousand Barrels per Day											
<b>1973</b>											
<b>AVERAGE</b>	136	164	486	71	213	223	459	1,135	106	2,993	915
<b>1974</b>											
<b>AVERAGE</b>	190	4	461	74	300	469	713	979	88	3,280	752
<b>1975</b>											
<b>AVERAGE</b>	282	232	715	117	390	280	762	702	122	3,601	1,383
<b>1976</b>											
<b>AVERAGE</b>	432	453	1,230	254	539	298	1,025	700	134	5,066	2,424
<b>1977</b>											
<b>AVERAGE</b>	559	723	1,380	335	541	535	1,143	690	287	6,193	3,185
<b>1978</b>											
<b>AVERAGE</b>	649	654	1,144	385	573	555	919	645	226	5,751	2,963
<b>1979</b>											
<b>AVERAGE</b>	636	658	1,356	281	420	304	1,080	690	212	5,637	3,056
<b>1980</b>											
January	503	618	1,576	202	454	95	1,054	786	179	5,467	3,034
February	656	603	1,412	304	317	9	1,036	543	152	5,031	3,058
March	472	654	1,380	289	405	0	924	352	175	4,652	2,889
April	546	683	1,300	150	374	0	734	343	240	4,369	2,862
May	441	468	1,149	172	360	0	955	405	147	4,098	2,329
June	497	561	1,328	178	331	0	998	409	106	4,408	2,598
July	557	492	1,192	158	365	0	752	417	62	3,995	2,418
August	432	431	1,139	142	289	0	792	406	112	3,743	2,222
September	375	505	1,112	107	299	0	735	425	111	3,670	2,185
October	465	478	1,044	182	348	0	728	482	95	3,821	2,226
November	493	500	1,201	105	348	0	624	595	78	3,944	2,338
December	423	658	1,301	83	288	0	958	610	101	4,423	2,484
<b>AVERAGE</b>	<b>488</b>	<b>554</b>	<b>1,261</b>	<b>172</b>	<b>348</b>	<b>9</b>	<b>857</b>	<b>481</b>	<b>130</b>	<b>4,300</b>	<b>2,551</b>
<b>1981</b>											
January	341	500	1,284	93	424	0	908	549	27	4,127	2,219
February	381	468	1,122	93	406	0	866	463	92	3,891	2,064
March	352	485	1,027	47	328	0	771	360	54	3,425	1,912
April	263	485	1,034	68	307	0	812	237	39	3,245	1,867
May	393	443	933	17	297	0	664	331	124	3,203	1,796
June	356	380	865	60	367	0	528	248	118	2,922	1,703
July	333	251	1,073	80	340	0	651	466	38	3,233	1,757
August	348	274	1,082	61	377	0	321	523	84	3,070	1,765
September	336	154	1,477	96	371	0	323	359	149	3,264	2,063
October	242	147	1,342	90	427	0	412	389	172	3,220	1,820
November	210	132	1,270	112	353	0	517	535	56	3,184	1,724
December	176	122	1,045	158	400	0	684	411	132	3,129	1,502
<b>AVERAGE</b>	<b>311</b>	<b>319</b>	<b>1,129</b>	<b>81</b>	<b>366</b>	<b>0</b>	<b>620</b>	<b>406</b>	<b>90</b>	<b>3,323</b>	<b>1,848</b>
<b>1982</b>											
January	254	161	877	87	273	0	662	376	128	2,818	1,378
February	139	92	692	79	236	0	579	347	102	2,267	1,044
March	91	37	555	155	200	0	503	399	91	2,032	860
April	85	0	479	122	215	0	427	411	79	1,818	707
<b>AVERAGE</b>	<b>143</b>	<b>73</b>	<b>651</b>	<b>112</b>	<b>231</b>	<b>0</b>	<b>543</b>	<b>384</b>	<b>100</b>	<b>2,236</b>	<b>999</b>

<sup>1</sup> Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

<sup>2</sup> Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

Totals may not equal sum of components due to independent rounding.

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Geographic coverage: The 50 United States and the District of Columbia, including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

# Crude Oil and Petroleum Product Imports from Non-OPEC Sources

	Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico <sup>1</sup>	Virgin Islands <sup>1</sup>	Other <sup>2</sup>	Total
Thousand Barrels per Day										
<b>1973</b>										
<b>AVERAGE</b>	174	1,325	16	585	255	15	99	329	465	3,263
<b>1974</b>										
<b>AVERAGE</b>	164	1,070	8	511	251	8	90	391	340	2,832
<b>1975</b>										
<b>AVERAGE</b>	152	846	71	332	242	14	90	406	300	2,454
<b>1976</b>										
<b>AVERAGE</b>	118	599	87	275	274	31	88	422	353	2,247
<b>1977</b>										
<b>AVERAGE</b>	171	517	179	211	289	126	105	466	550	2,614
<b>1978</b>										
<b>AVERAGE</b>	160	467	318	229	253	180	94	429	484	2,613
<b>1979</b>										
<b>AVERAGE</b>	147	538	439	231	190	202	92	431	548	2,819
<b>1980</b>										
January	175	570	545	289	239	296	57	467	492	3,131
February	111	540	477	205	192	105	95	536	652	2,914
March	124	460	460	184	189	232	101	449	601	2,800
April	56	459	546	231	143	182	76	425	619	2,737
May	77	419	576	176	221	124	88	303	496	2,481
June	77	409	627	197	162	146	91	314	465	2,486
July	43	378	460	242	180	115	90	378	376	2,262
August	62	319	646	255	159	196	85	264	463	2,449
September	58	458	550	213	205	218	52	343	473	2,569
October	70	475	605	230	114	134	107	372	450	2,557
November	22	470	459	264	158	157	108	391	435	2,464
December	54	502	445	212	149	199	109	423	378	2,471
<b>AVERAGE</b>	78	455	533	225	176	176	88	388	491	2,609
<b>1981</b>										
January	39	543	401	198	150	233	89	494	552	2,701
February	84	546	437	227	163	271	46	481	626	2,881
March	74	472	488	227	93	263	45	370	571	2,603
April	68	412	418	198	139	402	40	365	380	2,423
May	122	365	522	213	105	368	58	344	474	2,573
June	51	353	538	196	124	397	67	262	525	2,513
July	77	382	384	212	178	553	50	206	541	2,583
August	69	378	489	255	123	592	68	184	539	2,698
September	111	423	708	163	169	528	72	265	661	3,100
October	63	449	669	161	121	351	60	303	562	2,739
November	63	547	628	168	108	253	76	294	421	2,557
December	70	501	587	148	125	280	73	367	563	2,714
<b>AVERAGE</b>	74	447	522	197	133	375	62	327	534	2,672
<b>1982</b>										
January	28	509	426	179	106	346	62	334	425	2,415
February	50	533	489	221	120	132	38	354	487	2,424
March	43	435	503	189	118	293	62	307	479	2,429
April	67	357	467	180	166	247	36	266	682	2,468
<b>AVERAGE</b>	47	457	471	192	127	257	50	315	518	2,434

<sup>1</sup> U.S. Possessions.

<sup>2</sup> Includes all Non-OPEC countries except those shown above.

Totals may not equal sum of components due to independent rounding.

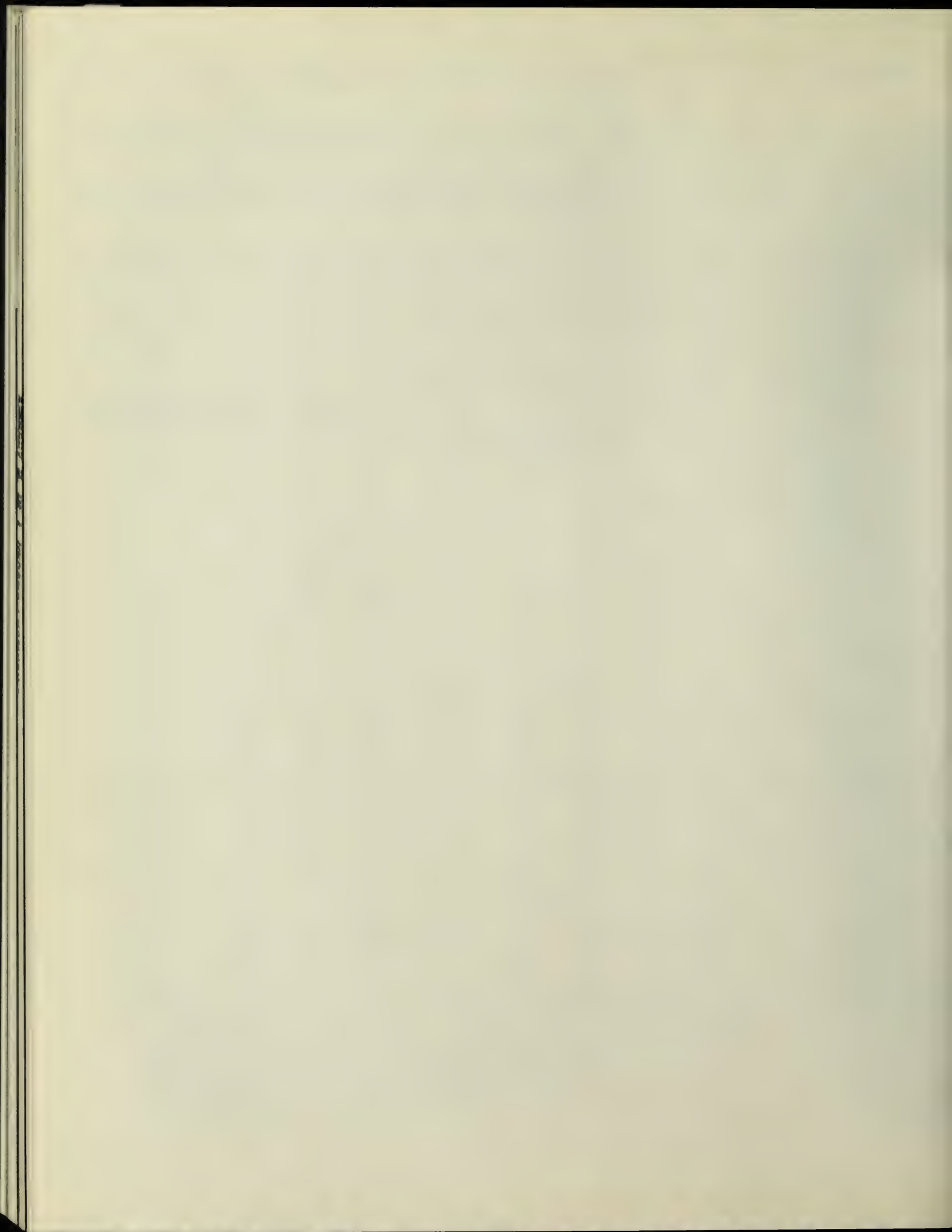
Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Geographic coverage: The 50 United States and the District of Columbia, including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

## Sources

- 1973 through 1976: Bureau of Mines, U.S. Department of the Interior, "Petroleum Statement, Annual" and PAD Districts Supply/Demand, Annual," Mineral Industry Surveys.
- 1977 through 1980: Energy Information Administration, U.S. Department of Energy, "Monthly Petroleum Statistics Report," (unleaded gasoline category).
- 1977 through 1980: Energy Information Administration, U.S. Department of Energy, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual," "Energy Data Reports.
- January 1981 through December 1981: Energy Information Administration, U.S. Department of Energy, "Petroleum Supply Annual"
- January 1982 through April 1982: Detailed statistics in this issue. (See Explanatory Notes 5.1 through 5.6).
- May 1982: Estimates based on EIA weekly data (except domestic crude oil production). See Explanatory Note 2.2).
- January 1982 through May 1982: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U. S. Geological Survey. (See Explanatory Note 2.7).



## Detailed Statistics



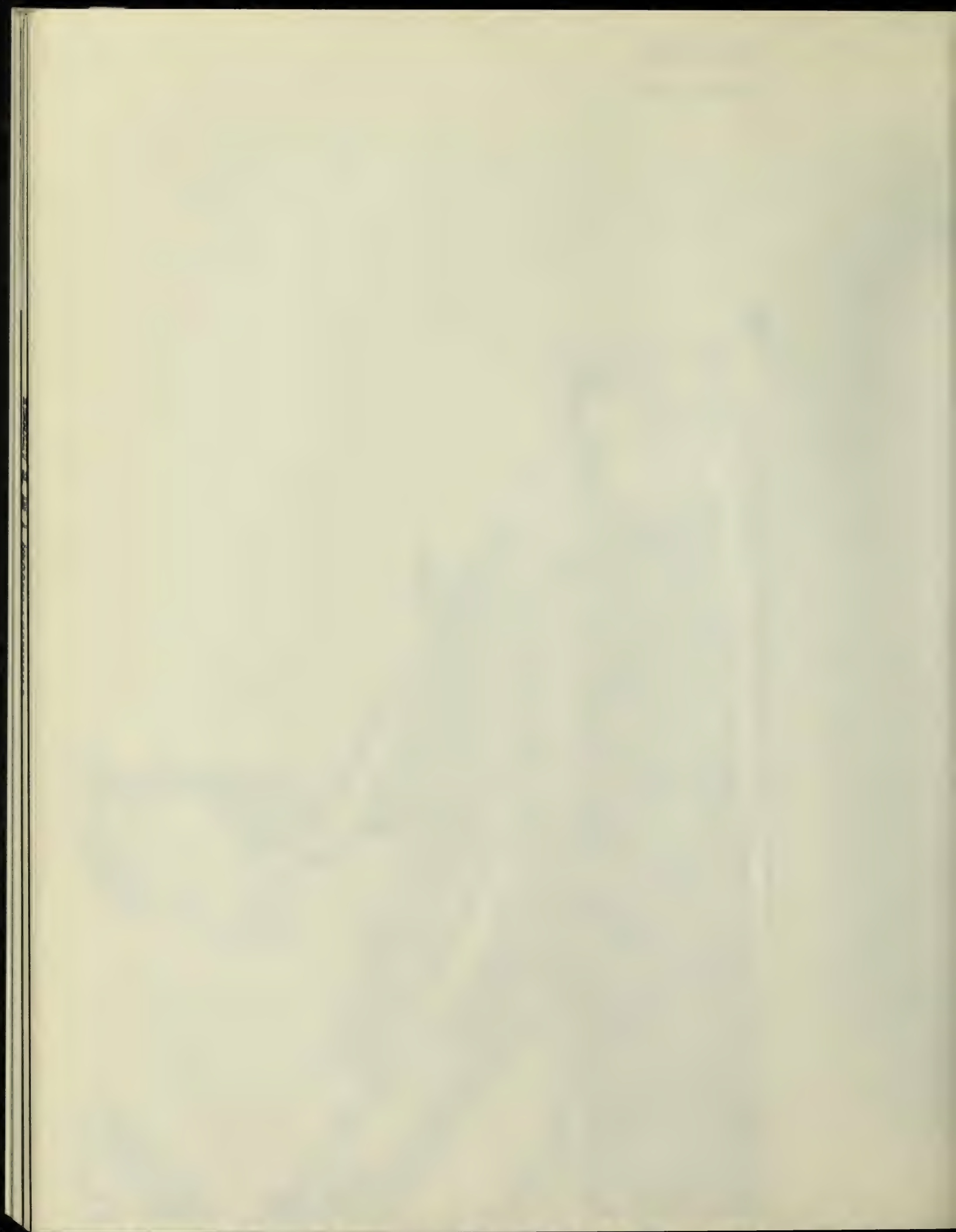


Table 1. U.S. Petroleum Balance, April 1982

	Current Month		Year-to-Date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Crude Oil (Including Lease Condensate)				
Field Production				
(1) Alaska .....	E 50,595	1,687	E 204,445	1,704
(2) Lower 48 States .....	E 208,971	6,966	E 833,683	6,947
(3) Total U.S. ....	E 259,566	8,652	E 1,038,128	8,651
Net Imports				
(4) Imports (Gross Excluding SPR) .....	78,683	2,623	347,402	2,895
(5) SPR Imports .....	5,694	190	21,167	176
(6) Exports .....	5,234	174	31,088	259
(7) Imports (Net Including SPR) .....	79,143	2,638	337,481	2,812
Other Sources				
(8) SPR Withdrawal (+) or Addition (-) .....	-6,997	-233	-25,193	-210
(9) Other Stock Withdrawal (+) or Addition (-) .....	10,215	341	7,990	67
(10) Used Directly and Losses .....	-2,026	-68	-8,021	-67
(11) Unaccounted for <sup>1</sup> .....	1,670	56	16,602	138
(12) Total Other Sources .....	2,862	95	-8,622	-72
(13) Crude Input to Refineries .....	341,571	11,386	1,366,987	11,392
(13) = (3) + (7) + (12)				
Natural Gas Plant Liquids (NGPL)				
(14) Field Production .....	47,643	1,588	186,975	1,558
(15) Imports <sup>2</sup> .....	172	6	961	8
(16) Stock Withdrawal (+) or Addition (-) <sup>2</sup> .....	2,319	77	70	1
(17) Total NGPL Supply .....	50,134	1,671	188,006	1,567
Other Liquids				
Unfinished Oils and Gasoline Blending Components, Total				
(18) Stock Withdrawal (+) or Addition (-) .....	2,799	93	-1,187	-10
(19) Imports .....	3,633	121	17,666	147
(20) Other Hydrocarbons and Alcohol New Supply (Field Production) .....	1,660	55	5,633	47
(21) Refinery Processing Gain <sup>1</sup> .....	14,886	496	60,796	507
(22) Crude Used Directly .....	1,953	65	7,635	64
(23) Total Other Liquids .....	24,931	831	90,543	755
(23) = (18) through (22)				
(24) Total Production of Products <sup>3</sup> .....	416,637	13,888	1,645,535	13,713
(24) = (13) + (17) + (23)				
Net Imports of Refined Products <sup>3</sup>				
(25) Imports (Gross) .....	40,407	1,347	173,243	1,444
(26) Exports .....	18,331	611	68,020	567
(27) Imports (Net) .....	22,076	736	105,223	877
(28) Total New Supply of Products .....	438,713	14,624	1,750,758	14,590
(28) = (24) + (27)				
(29) Refined Products Stock Withdrawal (+) or Addition (-) <sup>3</sup> .....	42,713	1,424	152,115	1,268
(30) Total Petroleum Products Supplied for Domestic Use .....	481,426	16,048	1,902,873	15,857
(30) = (28) + (29)				
(31) Finished Motor Gasoline .....	206,705	6,890	765,573	6,380
(32) Naphtha-Type Jet Fuel .....	6,634	221	24,079	201
(33) Kerosene-Type Jet Fuel .....	23,411	780	97,731	814
(34) Kerosene .....	3,360	112	18,348	153
(35) Distillate Fuel Oil .....	89,891	2,996	375,526	3,129
(36) Residual Fuel Oil .....	56,006	1,867	244,871	2,041
(37) Liquefied Petroleum Gases and Ethane .....	45,811	1,527	196,423	1,637
(38) Other .....	58,810	1,960	217,136	1,809
(39) Total Reclassified <sup>1</sup> .....	-9,199	-307	-36,812	-307
(40) Total Product Supplied .....	481,428	16,048	1,902,875	15,857
(40) = (31) through (39)				
Ending Stocks, All Oils				
(41) Crude Oil and Lease Condensate (Excluding SPR) .....	355,474	--	--	--
(42) Strategic Petroleum Reserve (SPR) .....	255,534	--	--	--
(43) Unfinished Oils .....	118,949	--	--	--
(44) Gasoline Blending Components .....	44,017	--	--	--
(45) Natural Gasoline and Unfractionated Stream .....	15,449	--	--	--
(46) Finished Refined Products <sup>3</sup> .....	560,430	--	--	--
(47) Total Stocks .....	1,349,853	--	--	--

<sup>1</sup> A balancing item.<sup>2</sup> Includes isopentane, natural gasoline, unfractionated stream, and plant condensate only.<sup>3</sup> For products included see Explanatory Note 5.7.

E = Estimated.

-- Not Applicable.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1, 2, and 5.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, April 1982  
(Thousands of Barrels)

Commodity	Supply					Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 259,566	0	84,377	3,218	1,670	-2,026	341,571	5,234	0	611,008
Natural Gas Plant Liquids and LRGs	47,208	7,827	5,803	5,527	0	0	14,431	2,298	49,636	121,237
Natural Gasoline and Isopentane	7,861	0	0	1,390	0	0	5,482	0	3,770	10,058
Unfractionated Stream	-885	0	0	904	0	0	0	0	19	3,884
Plant Condensate	1,089	0	172	25	0	0	1,249	0	37	1,507
Liquefied Petroleum Gases and Ethane	39,143	7,827	5,631	3,208	0	0	7,700	2,298	45,811	105,788
Ethane	9,033	213	1,207	-97	0	0	178	(s)	10,177	5,769
Propane	13,899	7,019	968	1,728	0	0	92	1,264	22,257	58,605
Butane	6,522	429	1,361	211	0	0	3,555	1,034	3,934	17,096
Butane-Propane Mixtures	121	175	1,125	8	0	0	109	0	1,320	981
Ethane-Propane Mixtures	6,434	0	971	723	0	0	0	0	8,128	16,262
Isobutane	3,136	-9	0	634	0	0	3,766	0	-5	7,075
Other Liquids	1,660	0	3,633	2,799	0	0	17,291	0	-9,199	162,966
Other Hydrocarbons and Alcohol	1,660	0	0	-31	0	0	1,629	0	0	214
Unfinished Oils	0	0	2,731	-3,116	0	0	5,329	0	-5,714	118,949
Motor Gasoline Blending Components	0	0	902	5,827	0	0	10,298	0	-3,569	43,264
Aviation Gasoline Blending Components	0	0	0	119	0	0	35	0	84	539
Finished Petroleum Products	436	380,352	34,776	39,506	0	1,953	0	16,032	440,991	454,641
Finished Motor Gasoline	55	183,072	5,323	19,244	0	0	0	990	206,705	179,574
Finished Leaded Motor Gasoline	54	87,720	3,604	11,502	0	0	0	990	101,890	90,640
Finished Unleaded Motor Gasoline	2	95,252	1,719	7,758	0	0	0	0	104,731	88,864
Gasohol	0	100	0	-16	0	0	0	0	84	70
Finished Aviation Gasoline	50	494	0	220	0	0	0	0	763	2,422
Naphtha-Type Jet Fuel	0	6,388	182	87	0	0	0	22	6,634	6,358
Kerosene-Type Jet Fuel	2	23,917	1,242	-1,706	0	0	0	44	23,411	37,787
Kerosene	3	3,616	590	-829	0	0	0	20	3,360	9,592
Distillate Fuel Oil	2	70,714	1,779	18,928	0	386	0	1,919	89,891	108,803
Residual Fuel Oil	0	34,862	22,863	3,725	0	1,567	0	7,012	56,006	53,624
Naphtha < 400 Deg. for Petro. Feed. Use	0	4,370	1,639	415	0	0	0	210	6,215	2,734
Other Oils > 400 Deg. for Petro. Feed. Use	0	7,875	0	193	0	0	0	442	7,626	1,457
Special Naphthas	96	1,439	836	189	0	0	0	433	2,128	3,569
Lubricants	0	4,526	187	352	0	0	0	513	4,552	13,353
Waxes	0	412	7	1	0	0	0	14	406	664
Petroleum Coke	0	12,142	0	-99	0	0	0	4,382	7,661	4,793
Asphalt	0	8,031	118	-1,002	0	0	0	4	7,143	27,087
Road Oil	0	196	1	-16	0	0	0	0	181	54
Still Gas	0	15,998	0	0	0	0	0	0	15,998	0
Miscellaneous Products	228	2,300	8	-197	0	0	0	27	2,312	2,770
Total	308,871	388,179	128,589	51,050	1,670	-73	373,293	23,565	481,428	1,349,853

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

(s) Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 3. Year-to-Date Supply and Disposition Statistics of Crude Oil and Petroleum Products, January - April 1982  
(Thousands of Barrels)

Commodity	Supply				Disposition					
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate) .....	E 1,038,128	0	368,569	-17,203	16,602	-8,021	1,366,987	31,088	0	611,008
Natural Gas Plant Liquids and LRGs .....	184,831	29,969	31,361	28,933	0	0	62,765	8,117	204,212	121,237
Natural Gasoline and Isopentane .....	27,771	0	313	-666	0	0	19,845	0	7,574	10,058
Unfractionated Stream .....	-489	0	0	668	0	0	8	0	171	3,884
Plant Condensate .....	4,078	0	648	67	0	0	4,749	0	44	1,507
Liquefied Petroleum Gases and Ethane .....	153,471	29,969	30,401	28,863	0	0	38,163	8,117	196,423	105,788
Ethane .....	33,570	775	6,884	-855	0	0	873	(5)	39,501	5,769
Propane .....	56,557	28,318	7,946	16,953	0	0	446	3,731	105,597	58,605
Butane .....	25,858	573	6,795	10,158	0	0	22,032	4,385	16,967	17,096
Butane-Propane Mixtures .....	421	298	3,013	772	0	0	574	0	3,930	981
Ethane-Propane Mixtures .....	24,362	0	5,763	172	0	0	0	0	30,297	16,252
Isobutane .....	12,702	5	0	1,663	0	0	14,238	0	132	7,075
Other Liquids .....	5,633	0	17,666	-1,187	0	0	58,924	0	-36,812	162,966
Other Hydrocarbons and Alcohol .....	5,633	0	0	-6	0	0	5,627	0	0	214
Unfinished Oils .....	0	0	13,915	-7,601	0	0	24,612	0	-18,298	113,843
Motor Gasoline Blending Components .....	0	0	3,751	6,268	0	0	28,789	0	-18,770	43,264
Aviation Gasoline Blending Components .....	0	0	0	152	0	0	-104	0	256	532
Finished Petroleum Products .....	2,146	1,519,503	142,842	123,253	0	7,635	0	59,903	1,735,476	454,841
Finished Motor Gasoline .....	285	726,258	18,276	23,895	0	0	0	3,140	765,573	175,574
Finished Leaded Motor Gasoline .....	267	347,401	10,921	17,444	0	0	0	3,140	372,845	84,451
Finished Unleaded Motor Gasoline .....	18	378,429	7,355	6,461	0	0	0	0	352,465	84,451
Gasohol .....	0	428	0	11	0	0	0	0	417	70
Finished Aviation Gasoline .....	173	2,276	0	311	0	0	0	0	2,787	1,441
Naphtha-Type Jet Fuel .....	0	23,123	283	696	0	0	0	23	24,099	1,164
Kerosene-Type Jet Fuel .....	2	97,721	4,408	-3,776	0	0	0	624	-1,721	17,701
Kerosene .....	16	15,987	1,567	1,450	0	0	0	372	18,438	14,844
Distillate Fuel Oil .....	11	211,402	9,830	82,707	0	1,315	0	1,421	377,528	108,411
Residual Fuel Oil .....	0	138,087	-92,478	24,368	0	6,320	0	0	244,871	111,111
Naphtha - 400 Deg. for Petro. Feed, .....	0	14,957	265	265	0	0	0	0	31,273	1,444
Other Oils - 400 Deg. for Petrochem .....	0	32,466	0	392	0	0	0	0	32,763	1,447
Special Naphthas .....	301	5,454	2,801	345	0	0	0	1,418	18,041	1,100
Lubricants .....	0	17,137	768	951	0	0	0	1,935	18,041	1,100
Waxes .....	0	1,638	60	6	0	0	0	87	1,785	611
Petroleum Coke .....	0	48,035	0	-231	0	0	0	1,403	31,444	4,704
Asphalt .....	0	26,994	178	-1,500	0	0	0	31	16,443	17,704
Road Oil .....	0	239	1	-38	0	0	0	0	212	0
Still Gas .....	0	63,034	0	0	0	0	0	0	63,034	0
Miscellaneous Products .....	1,352	9,635	33	0	0	0	0	145	40,874	1,100
Total .....	1,230,738	1,549,472	560,438	133,795	16,602	-366	1,488,676	99,108	1,902,875	1,349,853

1. Unaccounted for crude oil is a balancing item.

2. Total equals refinery fuel use and loss.

(b) Less than 500 barrels or less than 500 barrels per day.

E. Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures. See Explanatory Notes on Data Collection and Estimation.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, April 1982  
(Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal(+) Addition(-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate) .....	E 8,652	0	2,813	107	56	-68	11,386	174	0
Natural Gas Plant Liquids and LRGs .....	1,574	261	193	184	0	0	481	77	1,655
Natural Gasoline and Isopentane .....	262	0	0	46	0	0	183	0	126
Unfractionated Stream .....	-30	0	0	30	0	0	0	0	1
Plant Condensate .....	36	0	6	1	0	0	42	0	1
Liquefied Petroleum Gases and Ethane .....	1,305	261	188	107	0	0	257	77	1,527
Ethane .....	301	7	40	-3	0	0	6	(s)	339
Propane .....	463	234	32	58	0	0	3	42	742
Butane .....	217	14	45	7	0	0	118	34	131
Butane-Propane Mixtures .....	4	6	37	(s)	0	0	4	0	44
Ethane-Propane Mixtures .....	214	0	32	24	0	0	0	0	271
Isobutane .....	105	(s)	0	21	0	0	126	0	(s)
Other Liquids .....	55	0	121	93	0	0	576	0	-307
Other Hydrocarbons and Alcohol .....	55	0	0	-1	0	0	54	0	0
Unfinished Oils .....	0	0	91	-104	0	0	178	0	-190
Motor Gasoline Blending Components .....	0	0	30	194	0	0	343	0	-119
Aviation Gasoline Blending Components .....	0	0	0	4	0	0	1	0	3
Finished Petroleum Products .....	15	12,678	1,159	1,317	0	65	0	534	14,700
Finished Motor Gasoline .....	2	6,102	177	641	0	0	0	33	6,890
Finished Leaded Motor Gasoline .....	2	2,924	120	383	0	0	0	33	3,396
Finished Unleaded Motor Gasoline .....	(s)	3,175	57	259	0	0	0	0	3,491
Gasohol .....	0	3	0	-1	0	0	0	0	3
Finished Aviation Gasoline .....	2	16	0	7	0	0	0	0	25
Naphtha-Type Jet Fuel .....	0	213	6	3	0	0	0	1	221
Kerosene-Type Jet Fuel .....	(s)	797	41	-57	0	0	0	1	780
Kerosene .....	(s)	121	20	-28	0	0	0	1	112
Distillate Fuel Oil .....	(s)	2,357	59	631	0	13	0	64	2,996
Residual Fuel Oil .....	0	1,162	762	124	0	52	0	234	1,867
Naphtha < 400 Deg. for Petro. Feed. Use .....	0	146	55	14	0	0	0	7	207
Other Oils > 400 Deg. for Petro. Feed. Use .....	0	262	0	6	0	0	0	15	254
Special Naphthas .....	3	48	28	6	0	0	0	14	71
Lubricants .....	0	151	6	12	0	0	0	17	152
Waxes .....	0	14	(s)	(s)	0	0	0	(s)	14
Petroleum Coke .....	0	405	0	-3	0	0	0	146	255
Asphalt .....	0	268	4	-33	0	0	0	(s)	238
Road Oil .....	0	7	(s)	-1	0	0	0	0	6
Still Gas .....	0	533	0	0	0	0	0	0	533
Miscellaneous Products .....	8	77	(s)	-7	0	0	0	1	77
Total .....	10,296	12,939	4,286	1,702	56	-2	12,443	786	16,048

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

(s) Less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January - April 1982  
(Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal(+) Addition(-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,651	0	3,071	-143	138	-67	11,392	259	0
Natural Gas Plant Liquids and LRGs	1,540	250	261	241	0	0	523	68	1,702
Natural Gasoline and Isopentane	231	0	3	-6	0	0	165	0	63
Unfractionated Stream	-4	0	0	6	0	0	(s)	0	1
Plant Condensate	34	0	5	1	0	0	40	0	(s)
Liquefied Petroleum Gases and Ethane	1,279	250	253	241	0	0	318	68	1,637
Ethane	280	6	57	-7	0	0	7	(s)	329
Propane	471	236	66	141	0	0	4	31	880
Butane	215	5	57	85	0	0	184	37	141
Butane-Propane Mixtures	4	2	25	6	0	0	5	0	33
Ethane-Propane Mixtures	203	0	48	1	0	0	0	0	252
Isobutane	106	(s)	0	14	0	0	119	0	1
Other Liquids	47	0	147	-10	0	0	491	0	-307
Other Hydrocarbons and Alcohol	47	0	0	(s)	0	0	47	0	0
Unfinished Oils	0	0	116	-63	0	0	205	0	-152
Motor Gasoline Blending Components	0	0	31	52	0	0	240	0	-156
Aviation Gasoline Blending Components	0	0	0	1	0	0	-1	0	2
Finished Petroleum Products	18	12,663	1,190	1,027	0	64	0	499	14,462
Finished Motor Gasoline	2	6,052	152	199	0	0	0	26	6,382
Finished Leaded Motor Gasoline	2	2,895	91	145	0	0	0	26	3,107
Finished Unleaded Motor Gasoline	(s)	3,154	61	54	0	0	0	0	3,269
Gasohol	0	4	0	(s)	0	0	0	0	3
Finished Aviation Gasoline	1	19	0	3	0	0	0	0	23
Naphtha-Type Jet Fuel	0	193	2	6	0	0	0	(s)	201
Kerosene-Type Jet Fuel	(s)	814	37	-31	0	0	0	5	814
Kerosene	(s)	130	13	12	0	0	0	2	153
Distillate Fuel Oil	(s)	2,428	82	689	0	11	0	82	3,129
Residual Fuel Oil	0	1,151	854	203	0	53	0	220	2,041
Naphtha < 400 Deg. for Petro. Feed. Use	0	166	17	-2	0	0	0	5	177
Other Oils > 400 Deg. for Petro. Feed. Use	0	271	0	2	0	0	0	17	256
Special Naphthas	3	49	23	3	0	0	0	8	69
Lubricants	0	143	6	8	0	0	0	16	141
Waxes	0	14	(s)	(s)	0	0	0	1	14
Petroleum Coke	0	400	0	-2	0	0	0	115	283
Asphalt	0	225	1	-62	0	0	0	(s)	164
Road Oil	0	2	(s)	(s)	0	0	0	0	2
Still Gas	0	525	0	0	0	0	0	0	525
Miscellaneous Products	11	80	(s)	(s)	0	0	0	1	91
Total	10,256	12,912	4,670	1,115	138	-3	12,406	826	15,857

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

(s) Less than 500 barrels per day.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 6. PAD District I, Supply and Disposition of Crude Oil and Petroleum Products, April 1982  
(Thousands of Barrels)

Commodity	Supply					Disposition				Ending Stocks	
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Refinery Inputs	Exports		Products Supplied
Crude Oil (including lease condensate) .....	E 2,751	0	26,536	1,041	1,547	-1	3,313	35,187	0	0	17,691
Natural Gas Plant Liquids and LRGs .....	1,147	1,344	345	28	0	0	1,807	286	62	4,324	2,571
Liquefied Petroleum Gases .....	485	1,344	210	39	0	0	1,807	261	62	3,562	2,540
Ethane .....	362	0	0	0	0	0	0	0	(s)	362	0
Other Products <sup>3</sup> .....	300	0	135	-11	0	0	0	25	0	400	31
Other Liquids .....	80	0	1,903	460	0	0	1,067	4,210	0	-700	20,895
Other Hydrocarbons and Alcohol .....	80	0	0	-3	0	0	0	77	0	0	7
Unfinished Oils .....	0	0	1,150	-836	0	0	1,067	2,021	0	-640	16,101
Motor Gasoline Blending Components .....	0	0	754	1,299	0	0	0	2,112	0	-59	4,787
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products .....	51	39,788	27,780	14,426	0	0	70,931	0	780	152,195	142,725
Finished Motor Gasoline .....	51	19,577	4,193	4,117	0	0	42,290	0	1	70,227	56,960
Finished Leaded Motor Gasoline .....	51	8,485	3,091	1,820	0	0	19,013	0	1	32,458	26,948
Finished Unleaded Motor Gasoline .....	0	11,092	1,102	2,295	0	0	23,277	0	0	37,766	29,996
Gasohol .....	0	0	0	2	0	0	0	0	0	2	16
Finished Aviation Gasoline .....	0	4	0	-21	0	0	264	0	0	247	465
Naphtha-Type Jet Fuel .....	0	747	182	-25	0	0	707	0	(s)	1,611	627
Kerosene-Type Jet Fuel .....	0	876	1,242	-556	0	0	7,627	0	0	9,189	9,601
Kerosene .....	0	181	500	8	0	0	413	0	(s)	1,102	3,868
Distillate Fuel Oil .....	0	7,670	1,487	9,826	0	0	13,905	0	1	32,887	35,104
Residual Fuel Oil .....	0	4,673	18,898	1,321	0	0	4,058	0	(s)	28,950	23,508
Naphtha and Other Oils for Petrochem. ....											
Feedstock .....	0	407	707	109	0	0	-126	0	61	1,036	252
Special Naphthas .....	0	19	337	-29	0	0	312	0	4	636	1,068
Lubricants .....	0	627	116	39	0	0	819	0	176	1,425	3,900
Waxes .....	0	97	2	-9	0	0	5	0	5	90	151
Petroleum Coke .....	0	1,169	0	-78	0	0	0	0	517	574	1,077
Asphalt .....	0	1,809	114	-264	0	0	261	0	1	1,919	5,671
Road Oil .....	0	0	1	0	0	0	0	0	0	1	0
Still Gas .....	0	1,551	0	0	0	0	0	0	0	1,551	0
Miscellaneous Products .....	0	381	1	-12	0	0	396	0	16	751	473
Total .....	4,029	41,132	56,564	15,955	1,547	-1	77,118	39,683	842	155,819	183,882

1 Unaccounted for crude oil is a balancing item.

2 Total equals refinery fuel use and loss.

3 Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.

(s) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 7. PAD District II Supply and Disposition of Crude Oil and Petroleum Products, April 1982  
(Thousands of Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate) .....	E 29,583	0	9,803	1,740	38,554	-5	1,125	80,042	757	0	81,623
Natural Gas Plant Liquids and LRGs .....	8,689	1,787	3,530	255	0	0	4,103	4,382	765	13,218	32,986
Liquefied Petroleum Gases .....	7,275	1,765	2,323	80	0	0	3,053	2,927	765	10,805	27,570
Ethane .....	1,568	22	1,207	-118	0	0	0	0	0	2,680	1,886
Other Products <sup>3</sup> .....	-155	0	0	293	0	0	1,050	1,455	0	-267	3,530
Other Liquids .....	196	0	96	355	0	0	908	2,051	0	-496	32,454
Other Hydrocarbons and Alcohol .....	196	0	0	-23	0	0	0	173	0	0	115
Unfinished Oils .....	0	0	52	-1,184	0	0	55	-887	0	-190	22,454
Motor Gasoline Blending Components .....	0	0	44	1,548	0	0	853	2,751	0	-306	9,704
Aviation Gasoline Blending Components .....	0	0	0	14	0	0	0	14	0	0	181
Finished Petroleum Products .....	17	88,442	354	18,269	0	1	10,048	0	619	116,512	118,966
Finished Motor Gasoline .....	0	49,714	2	10,025	0	0	6,593	0	1	66,333	53,518
Finished Leaded Motor Gasoline .....	0	25,677	0	6,502	0	0	3,434	0	1	35,612	27,920
Finished Unleaded Motor Gasoline .....	0	23,995	2	3,531	0	0	3,159	0	0	30,687	25,569
Gasohol .....	0	42	0	-8	0	0	0	0	0	34	29
Finished Aviation Gasoline .....	0	58	0	92	0	0	53	0	0	203	556
Naphtha-Type Jet Fuel .....	0	988	0	-38	0	0	1	0	0	951	1,212
Kerosene-Type Jet Fuel .....	0	3,862	0	-549	0	0	1,308	0	0	4,621	8,118
Kerosene .....	0	592	0	-390	0	0	91	0	0	293	2,485
Distillate Fuel Oil .....	1	17,635	1	9,008	0	1	2,668	0	0	29,314	31,190
Residual Fuel Oil .....	0	3,313	250	760	0	0	-783	0	0	3,540	6,197
Naphtha and Other Oils for Petro. Feed .....	0	1,683	0	247	0	0	97	0	33	1,994	356
Special Naphthas .....	0	284	76	28	0	0	154	0	1	540	642
Lubricants .....	0	887	10	9	0	0	290	0	10	1,186	2,012
Waxes .....	0	35	4	3	0	0	0	0	1	42	75
Petroleum Coke .....	0	3,062	0	-79	0	0	0	0	572	2,411	1,014
Asphalt .....	0	2,493	5	-824	0	0	-273	0	1	1,400	11,384
Road Oil .....	0	14	0	-9	0	0	0	0	0	5	22
Still Gas .....	0	3,683	0	0	0	0	0	0	0	3,683	0
Miscellaneous Products .....	15	139	6	-13	0	0	-151	0	1	-5	184
Total .....	38,484	90,229	13,783	20,620	38,554	-4	16,184	86,475	2,141	129,234	266,029

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Total equals refinery fuel use and loss.

<sup>3</sup> Includes natural gasoline, isopentane, unfractionated stream, and plant condensate

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 8. PAD District III Supply and Disposition of Crude Oil and Petroleum Products, April 1982  
(Thousands of Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate) ..... E 125,466											
Natural Gas Plant Liquids and LRGs .....	34,648	3,300	1,125	5,089	0	0	-5,709	8,286	1,221	28,947	83,124
Liquefied Petroleum Gases .....	21,304	3,120	1,125	3,124	0	0	-4,951	3,437	1,221	19,065	67,694
Ethane .....	7,086	180	0	20	0	0	0	178	0	7,108	3,883
Other Products <sup>3</sup> .....	6,258	0	0	1,945	0	0	-758	4,671	0	2,774	11,547
Other Liquids .....											
Other Hydrocarbons and Alcohol .....	774	0	1,459	647	0	0	-1,975	9,172	0	-8,267	68,349
Unfinished Oils .....	774	0	0	-7	0	0	0	767	0	0	89
Motor Gasoline Blending Components .....	0	0	1,355	-723	0	0	-1,122	5,072	0	-5,562	50,430
Aviation Gasoline Blending Components .....	0	0	104	1,251	0	0	-853	3,291	0	-2,789	17,649
	0	0	0	126	0	0	0	42	0	84	181
Finished Petroleum Products .....											
Finished Motor Gasoline .....	349	175,446	4,473	4,130	0	12	-85,137	0	8,621	90,651	123,725
	0	79,714	242	3,419	0	0	-50,759	0	865	31,751	45,727
Finished Leaded Motor Gasoline .....	0	36,575	(s)	1,841	0	0	-23,173	0	865	14,378	23,433
Finished Unleaded Motor Gasoline .....	0	43,138	242	1,591	0	0	-27,579	0	0	17,392	22,277
Gasohol .....	0	1	0	-13	0	0	-7	0	0	-19	17
Finished Aviation Gasoline .....	50	282	0	127	0	0	-322	0	0	136	771
Naphtha-Type Jet Fuel .....	0	2,609	0	277	0	0	-863	0	22	2,001	2,718
Kerosene-Type Jet Fuel .....	2	12,898	0	-501	0	0	-9,724	0	0	2,675	12,350
Kerosene .....	3	2,663	90	-468	0	0	-504	0	20	1,764	3,026
Distillate Fuel Oil .....	(s)	33,157	19	-761	0	12	-16,919	0	1,102	14,407	28,230
Residual Fuel Oil .....	0	15,081	3,008	1,192	0	0	-3,770	0	3,831	11,680	13,495
Naphtha and Other Oils for Petro. Feed .....	0	9,695	802	221	0	0	-1	0	472	10,245	3,216
Special Naphthas .....	96	1,066	250	153	0	0	-466	0	427	672	1,549
Lubricants .....	0	2,607	60	323	0	0	-1,364	0	272	1,354	5,912
Waxes .....	0	208	1	13	0	0	-5	0	5	212	370
Petroleum Coke .....	0	4,499	0	-62	0	0	0	0	1,597	2,840	728
Asphalt .....	0	1,964	0	390	0	0	-226	0	1	2,127	3,927
Road Oil .....	0	0	0	0	0	0	0	0	0	0	2
Still Gas .....	0	7,439	0	0	0	0	0	0	0	7,439	0
Miscellaneous Products .....	198	1,564	(s)	-193	0	0	-214	0	8	1,347	1,705
Total ..... 161,237 178,746 49,580 5,452 -25,750 -44 -75,882 172,166 9,842 111,331 689,545											

<sup>1</sup> Unaccounted for crude oil is a balancing item.<sup>2</sup> Total equals refinery fuel use and loss.<sup>3</sup> Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.

(s) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 9. PAD District IV Supply and Disposition of Crude Oil and Petroleum Products, April 1982  
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Used Directly and Losses <sup>2</sup>	Net Receipts	Disposition			Ending Stocks
								Refinery Inputs	Exports	Products Supplied	
<b>Crude Oil (including lease condensate)</b> .....	E 17,886	0	1,049	94	-8,319	-10	0	10,700	0	0	15,986
<b>Natural Gas Plant Liquids and LRGs</b> .....	2,137	42	345	12	0	0	-201	446	0	1,888	1,136
Liquefied Petroleum Gases .....	757	42	308	21	0	0	91	264	0	954	883
Ethane .....	16	0	0	(s)	0	0	0	0	0	16	(s)
Other Products <sup>3</sup> .....	1,364	0	37	-9	0	0	-292	182	0	918	253
<b>Other Liquids</b> .....	41	0	0	867	0	0	0	536	0	372	5,975
Other Hydrocarbons and Alcohol .....	41	0	0	1	0	0	0	42	0	0	0
Unfinished Oils .....	0	0	0	352	0	0	0	-73	0	425	2,856
Motor Gasoline Blending Components .....	0	0	0	514	0	0	0	567	0	-53	3,119
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0
<b>Finished Petroleum Products</b> .....	20	11,792	1	1,159	0	10	257	0	1	13,238	14,491
Finished Motor Gasoline .....	5	6,228	0	667	0	0	-39	0	0	6,861	5,830
Finished Leaded Motor Gasoline .....	3	3,994	0	471	0	0	-165	0	0	4,303	3,788
Finished Unleaded Motor Gasoline .....	2	2,234	0	196	0	0	119	0	0	2,551	2,040
Gasohol .....	0	0	0	0	0	0	7	0	0	7	2
Finished Aviation Gasoline .....	0	28	0	3	0	0	5	0	0	36	59
Naphtha-Type Jet Fuel .....	0	452	0	-16	0	0	-103	0	0	333	310
Kerosene-Type Jet Fuel .....	0	506	0	13	0	0	486	0	0	1,005	611
Kerosene .....	0	8	0	18	0	0	0	26	0	26	56
Distillate Fuel Oil .....	0	2,971	(s)	555	0	0	-111	0	0	3,416	3,142
Residual Fuel Oil .....	0	340	0	27	0	10	0	0	0	377	523
Naphtha and Other Oils for Petro Feed .....	0	0	0	0	0	0	0	0	1	-1	0
Special Naphthas .....	0	7	(s)	-2	0	0	0	0	0	5	4
Lubricants .....	0	32	(s)	6	0	0	19	0	(s)	45	101
Waxes .....	0	6	0	3	0	0	0	0	(s)	3	9
Petroleum Coke .....	0	300	0	28	0	0	0	0	(s)	328	540
Asphalt .....	0	445	0	126	0	0	0	0	(s)	319	3,301
Road Oil .....	0	8	0	-1	0	0	0	0	0	7	4
Still Gas .....	0	444	0	0	0	0	0	0	0	444	0
Miscellaneous Products .....	15	17	0	2	0	0	0	0	(s)	34	1
<b>Total</b> .....	20,084	11,834	1,394	2,132	-8,319	0	56	11,682	1	15,498	37,588

<sup>1</sup> Unaccounted for crude oil is a balancing item

<sup>2</sup> Total equals refinery fuel use and loss.

<sup>3</sup> Includes natural gasoline, isopentane, unfractionated stream, and plant condensate

(s) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures. See Explanatory Notes on Data Collection and Estimation

Table 10. PAD District V Supply and Disposition of Crude Oil and Petroleum Products, April 1982  
(Thousands of Barrels)

Commodity	Supply				Disposition			Ending Stocks			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil1	Crude Used Directly and Losses2	Net Receipts		Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 83,880	0	4,467	4,757	-4,362	-1,954	-21,377	60,934	4,477	0	81,361
Natural Gas Plant Liquids and LRGs	587	1,354	458	142	0	0	0	1,031	251	1,259	1,421
Liquefied Petroleum Gases	290	1,343	458	41	0	0	0	633	251	1,247	1,333
Ethane	(s)	11	0	(s)	0	0	0	0	0	11	(s)
Other Products3	297	0	0	101	0	0	0	398	0	(s)	88
Other Liquids	569	0	174	470	0	0	0	1,322	0	-109	35,293
Other Hydrocarbons and Alcohol	569	0	0	1	0	0	0	570	0	0	3
Unfinished Oils	0	0	174	-725	0	0	0	-804	0	253	27,108
Motor Gasoline Blending Components	0	0	0	1,215	0	0	0	1,577	0	-362	8,005
Aviation Gasoline Blending Components	0	0	0	-21	0	0	0	-21	0	0	177
Finished Petroleum Products	0	64,884	2,168	1,522	0	1,930	3,901	0	6,010	68,395	54,734
Finished Motor Gasoline	0	27,839	885	1,017	0	0	1,915	0	123	31,533	17,539
Finished Leaded Motor Gasoline	0	12,989	513	869	0	0	891	0	123	15,138	8,551
Finished Unleaded Motor Gasoline	0	14,793	373	145	0	0	1,024	0	0	16,335	8,982
Gasohol	0	57	0	3	0	0	0	0	0	60	6
Finished Aviation Gasoline	0	122	0	19	0	0	0	0	0	141	571
Naphtha-Type Jet Fuel	0	1,592	0	-111	0	0	258	0	(s)	1,739	1,491
Kerosene-Type Jet Fuel	0	5,775	0	-113	0	0	303	0	44	5,921	7,107
Kerosene	0	172	0	3	0	0	0	0	(s)	175	157
Distillate Fuel Oil	0	9,281	273	300	0	373	457	0	816	9,867	11,137
Residual Fuel Oil	0	11,455	707	425	0	1,557	495	0	3,181	11,458	9,901
Naphtha and Other Oils for Petro. Feed.	0	460	130	31	0	0	30	0	85	565	367
Special Naphthas	0	63	173	39	0	0	0	0	1	275	306
Lubricants	0	373	(s)	-13	0	0	236	0	54	542	1,428
Waxes	0	66	0	-3	0	0	0	0	3	60	59
Petroleum Coke	0	3,112	0	92	0	0	0	0	1,697	1,507	1,434
Asphalt	0	1,320	0	-178	0	0	238	0	2	1,378	2,804
Road Oil	0	174	0	-6	0	0	0	0	0	168	26
Still Gas	0	2,881	0	0	0	0	0	0	0	2,881	0
Miscellaneous Products	0	199	(s)	20	0	0	-31	0	3	185	407
Total	85,036	66,238	7,267	6,891	-4,362	-24	-17,476	63,287	10,738	69,545	172,809

1 Unaccounted for crude oil is a balancing item.

2 Total equals refinery fuel use and loss.

3 Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.

(s) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 11. Production of Crude Oil (including Lease Condensate) by PAD District and State, for the Most Current Month,<sup>1</sup> February 1982  
(Thousands of Barrels)

PAD District and State	Production	
	Total	Daily Average
<b>PAD District I</b>		
Florida .....	2,154	77
New York .....	E 61	2
Pennsylvania .....	E 187	7
Virginia .....	0	0
West Virginia .....	E 179	6
<b>Total</b> .....	E 2,581	92
<b>PAD District II</b>		
Illinois .....	1,800	64
Indiana .....	E 524	19
Kansas .....	5,119	183
Kentucky .....	494	18
Michigan .....	2,624	94
Missouri .....	E 6	(s)
Nebraska .....	532	19
North Dakota .....	3,397	121
Ohio .....	E 1,042	37
Oklahoma .....	14,030	501
South Dakota .....	86	3
Tennessee .....	61	2
<b>Total</b> .....	E 29,715	1,061
<b>PAD District III</b>		
Alabama .....	1,603	57
Arkansas .....	1,423	51
Louisiana .....	31,503	1,125
Gulf Coast .....	2,769	99
Rest Of State .....	34,272	1,224
<b>Total Louisiana</b> .....	2,602	93
Mississippi .....		
New Mexico .....	524	19
Northwestern .....	4,939	176
Southeastern .....	5,463	195
<b>Total New Mexico</b> .....		
Texas .....		
TRRC District 01 .....	2,002	72
TRRC District 02 .....	3,101	111
TRRC District 03 .....	10,465	374
TRRC District 04 .....	2,225	79
TRRC District 05 .....	638	23
TRRC District 06, excluding East Texas .....	3,349	120
TRRC District 07B .....	2,476	88
TRRC District 07C .....	2,555	91
TRRC District 08 .....	17,722	633
TRRC District 08A .....	18,607	665
TRRC District 09 .....	2,826	101
TRRC District 10 .....	1,561	56
East Texas .....	4,117	147
<b>Total Texas</b> .....	71,644	2,559
<b>Total</b> .....	117,007	4,179

—Continued

PAD District and State	Production	
	Total	Daily Average
<b>PAD District IV</b>		
Colorado .....	2,360	84
Montana .....	2,432	87
Utah .....	E 1,863	67
Wyoming .....	E 10,016	358
<b>Total</b> .....	E 16,671	595
<b>PAD District V</b>		
Alaska .....		
South Alaska .....	1,827	65
North Slope .....	45,656	1,631
<b>Total Alaska</b> .....	47,483	1,696
Arizona .....	27	1
California .....		
Central Coastal .....	5,872	210
East Central .....	18,676	667
North .....	16	1
South .....	6,252	223
<b>Total California</b> .....	30,816	1,101
Nevada .....	46	2
<b>Total</b> .....	78,372	2,799
<b>United States Total</b> .....	E 244,346	8,727

<sup>1</sup> Includes offshore production.

(s) Less than 500 barrels.

Sources: See Explanatory Notes on Data Collection and Estimation  
E Estimated.

Table 12. Offshore Production of Crude Oil (including Lease Condensate) By State, for the Most Current Month,<sup>1</sup> February 1982 (Thousands of Barrels)

State	Offshore Production	
	Total	Daily Average
Alaska <sup>2</sup> .....	1,883	67
California .....		
Federal .....	2,114	76
State .....	3,060	109
California, Total .....	5,174	185
Louisiana .....		
Federal .....	19,569	699
State .....	1,865	67
Louisiana, Total .....	21,434	766
Texas .....		
Federal .....	1,141	41
State .....	117	4
Texas, Total .....	1,258	45
<b>United States Total</b> .....	<b>29,749</b>	<b>1,062</b>

<sup>1</sup> These production data are included in Table 11.

<sup>2</sup> All offshore production within State boundaries.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 13. Production of Lease Condensate by State, for the Most Current Month,<sup>1</sup> February 1982 (Thousands of Barrels)

State	Lease Condensate Production	
	Total	Daily Average
Alabama .....	957	34
California .....	12	(s)
Louisiana .....	5,748	205
Mississippi .....	150	5
New Mexico .....	419	15
Oklahoma .....	999	36
Texas .....	3,572	128
<b>Total</b> .....	<b>11,857</b>	<b>423</b>

<sup>1</sup> These production data are included in Table 11. Small amounts of lease condensate are known to be produced in states other than those listed, however, statistics on this production are not available.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 14. Natural Gas Processing Plant Production of Petroleum Products by PAD District,<sup>1</sup> April 1982  
(Thousands of Barrels)

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States			
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico		Total	Rocky Mt.	Dist. V West Coast
Natural Gas Plant Liquids	648	500	1,147	4	2,205	310	6,170	8,689	17,625	2,478	10,325	616	3,603	34,648	2,137	587	47,208
Isopentane	0	0	0	0	0	0	356	356	416	21	122	0	0	560	2	0	919
Natural Gasoline	86	32	118	0	79	81	1,127	1,287	2,001	1,107	1,332	120	276	4,836	388	314	6,943
Unfractionated Stream	0	182	182	4	953	49	-2,891	-1,885	6,936	-12,032	2,562	20	2,384	-131	966	-17	-885
Plant Condensate	0	0	0	0	50	0	37	87	200	867	38	-113	2	993	8	0	1,089
Liquefied Petroleum Gases and Ethane	561	286	847	0	1,122	180	7,541	8,844	8,071	12,516	6,271	590	941	28,390	773	290	39,143
Ethane	214	149	362	0	455	0	1,114	1,568	1,451	3,069	2,428	64	73	7,086	16	(s)	9,033
Propane	211	92	303	0	525	111	3,005	3,641	2,837	3,738	2,132	154	420	9,280	493	181	13,899
Butane	117	29	146	0	94	59	1,316	1,469	1,325	2,045	798	218	210	4,595	258	53	6,522
Butane-Propane Mixtures	0	0	0	0	2	0	0	2	50	24	3	6	0	83	2	33	121
Ethane-Propane Mixtures	0	0	0	0	0	0	1,591	1,591	1,829	2,633	215	(s)	166	4,843	0	0	6,434
Isobutane	20	16	36	0	46	10	516	572	580	1,007	695	148	73	2,503	3	23	3,136
Finished Motor Gasoline	51	0	51	0	0	0	0	0	0	0	0	0	0	0	5	0	54
Finished Leaded Motor Gasoline	51	0	51	0	0	0	0	0	0	0	0	0	0	0	3	0	55
Finished Unleaded Motor Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Gasohol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	50	0	0	0	0	50	0	0	50
Naphtha-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2
Kerosene	0	0	0	0	0	0	0	0	1	0	0	(s)	2	3	0	0	3
Distillate Fuel Oil	0	0	0	0	0	0	1	1	(s)	0	0	0	0	(s)	0	0	2
Special Naphthas	0	0	0	0	0	0	0	0	96	0	0	0	0	96	0	0	96
Miscellaneous Products	0	0	0	0	2	0	13	15	185	3	3	7	1	198	15	0	228
Total Production	699	500	1,198	4	2,207	310	6,184	8,705	17,956	2,481	10,327	624	3,606	34,995	2,157	587	47,643

<sup>1</sup> Production represents quantity of natural gas processing plant output less input to fractionating facilities.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding

Source: See Explanatory Notes on Data Collection and Estimation.

Table 15. Refinery Input of Crude Oil and Petroleum Products by PAD District, April 1982  
(Thousands of Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV			United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.		Dist. V West Coast
Crude Oil (including lease condensate) .....	31,774	3,413	35,187	1,751	47,837	6,857	23,597	80,042	11,416	80,069	56,877	4,640	1,706	154,708	10,700	60,934	341,571
Natural Gas Plant Liquids																	
Natural Gasoline and Isopentane .....	25	0	25	0	363	129	844	1,336	1,497	1,465	442	79	131	3,614	109	398	5,482
Unfractionated Stream .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant Condensate .....	0	0	0	0	102	0	17	119	62	733	15	246	1	1,057	73	0	1,249
LPG and Ethane .....	240	21	261	141	1,676	357	753	2,927	496	1,171	1,805	137	6	3,615	264	633	7,700
Ethane .....	0	0	0	0	0	0	0	0	0	88	90	0	0	178	0	0	178
Propane .....	0	0	0	0	41	0	0	41	0	0	50	0	0	50	1	0	92
Normal Butane .....	77	12	89	60	602	220	142	1,024	76	467	793	36	0	1,372	49	150	2,684
Other Butanes .....	0	0	0	0	198	94	92	384	72	80	0	1	0	153	157	177	871
Butane-Propane Mixtures .....	0	0	0	0	6	0	0	6	9	74	13	0	0	96	7	0	109
Ethane-Propane Mixtures .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Isobutane .....	163	9	172	81	829	43	519	1,472	339	462	859	100	6	1,766	50	366	3,766
Other Liquids																	
Other Hydrocarbons .....	62	15	77	0	164	0	9	173	11	569	187	0	0	767	42	570	1,629
Alcohol .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unfinished Oil (net) .....	2,056	-35	2,021	12	-1,504	16	589	-887	1,365	1,667	2,010	21	9	5,072	-73	-804	5,329
Motor Gasoline Blending Components (net) .....	2,086	26	2,112	-13	2,390	43	331	2,751	-373	1,109	2,492	45	18	3,291	567	1,577	10,298
Aviation Gasoline Blending Components (net) .....	0	0	0	0	14	0	0	14	-103	5	140	0	0	42	0	-21	35
Total Input to Refineries .....	36,243	3,440	39,683	1,891	51,042	7,402	26,140	86,475	14,371	86,788	63,968	5,168	1,871	172,166	11,682	63,287	373,293
Crude Oil Distillation																	
Gross Input (daily average) .....	1,096	114	1,210	63	1,620	242	795	2,721	441	2,680	2,047	165	61	5,394	361	2,079	11,765
Operable Capacity (daily average) .....	1,663	162	1,826	66	2,531	295	1,150	4,042	654	4,447	2,816	290	123	8,330	630	3,140	17,967
Operating Ratio (percent) <sup>1</sup> .....	65.9	70.1	66.3	96.2	64.0	82.1	69.1	67.3	67.4	60.3	72.7	56.7	49.8	64.7	57.4	66.2	65.5
Crude Oil Qualities																	
Sulfur Content, Weighted Average (percent) .....	1.07	.29	1.00	.58	.87	1.59	.67	.87	.45	.98	.79	1.68	.39	.89	.89	1.00	.91
API Gravity, Weighted Average .....	31.35	39.31	32.13	33.9	35.79	31.33	37.69	35.92	39.08	34.89	34.01	31.57	30.13	34.73	36.15	25.88	33.16

<sup>1</sup> Represents gross input divided by operable capacity.  
Note: Total may not equal sum of components due to independent rounding.  
Source: See Explanatory Notes on Data Collection and Estimation.

**Table 16. Refinery Production of Petroleum Products by PAD District, April 1982**  
(Thousands of Barrels)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV			United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.		Dist. V West Coast
Liquefied Petroleum Gases and Ethane	1,272	72	1,344	31	1,252	122	382	1,787	201	2,145	822	85	47	3,300	42	1,354	7,827
For Petrochemical Feedstock Use	370	0	370	0	170	2	41	213	24	1,227	354	9	0	1,614	-15	182	2,364
For Other Uses	902	72	974	31	1,082	120	341	1,574	177	918	468	76	47	1,686	57	1,172	5,463
Ethane	0	0	0	0	22	0	0	22	0	178	2	0	0	180	0	11	213
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	178	2	0	0	180	0	0	180
For Other Uses	0	0	0	0	22	0	0	22	0	0	0	0	0	0	0	11	33
Propane	996	72	1,068	31	1,220	107	487	1,845	217	1,842	1,019	62	26	3,166	108	832	7,019
For Petrochemical Feedstock Use	332	0	332	0	170	0	42	212	0	785	291	0	0	1,076	3	120	1,743
For Other Uses	664	72	736	31	1,050	107	445	1,633	217	1,057	728	62	26	2,090	105	712	5,276
Butane	269	0	269	0	10	15	-105	-80	-42	76	-156	20	10	-92	-40	372	429
For Petrochemical Feedstock Use	38	0	38	0	0	2	-1	1	0	264	0	9	0	273	3	62	377
For Other Uses	231	0	231	0	10	13	-104	-81	-42	-188	-156	11	10	-365	-43	310	52
Butane-Propane Mixtures	7	0	7	0	0	0	0	0	14	49	-43	3	11	34	-5	139	175
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	12	0	61	0	0	73	0	0	73
For Other Uses	7	0	7	0	0	0	0	0	2	49	-104	3	11	-39	-5	139	102
Isobutane for Petro. Feed Use	0	0	0	0	0	0	0	0	12	0	0	0	0	12	-21	0	-9
Finished Motor Gasoline	18,234	1,343	19,577	1,132	30,059	4,198	14,325	49,714	7,516	39,790	29,807	1,881	720	79,714	6,228	27,839	183,072
Finished Leaded Motor Gasoline	7,829	656	8,485	568	13,998	2,450	8,661	25,677	3,964	15,667	15,123	1,284	537	36,575	3,994	12,989	87,120
Finished Unleaded Motor Gasoline	10,405	687	11,092	564	16,025	1,748	5,658	23,995	3,551	24,123	14,684	597	183	43,138	2,234	14,793	95,252
Gasohol	0	0	0	0	36	0	6	42	1	0	0	0	0	1	0	57	100
Finished Aviation Gasoline	4	0	4	0	40	0	18	58	5	155	122	0	0	282	28	122	494
Naphtha-Type Jet Fuel	656	91	747	0	305	88	595	988	515	1,317	315	149	313	2,609	452	1,592	6,398
Kerosene-Type Jet Fuel	817	59	876	134	2,701	274	753	3,862	879	4,869	7,121	15	14	12,898	506	5,775	23,917
Kerosene	106	75	181	0	462	19	111	592	18	1,497	1,155	-2	-5	2,663	8	172	3,616
Distillate Fuel Oil	6,785	885	7,670	349	9,148	1,701	6,437	17,635	3,107	17,221	10,949	1,268	612	33,157	2,911	9,261	70,714
Distillate Fuel Oil Less No. 4	6,785	875	7,660	349	9,139	1,701	6,437	17,626	3,097	16,834	10,060	1,210	425	32,626	2,943	9,220	70,076
No. 4 Fuel Oil	0	10	10	0	9	0	0	9	10	387	-111	58	187	531	26	61	633
Residual Fuel Oil	4,544	129	4,673	96	2,242	267	709	3,313	777	6,973	6,832	395	104	15,081	340	11,455	34,862
Naphtha < 400 Deg. For Petro. Feed Use	347	0	347	0	450	0	83	533	280	2,792	202	0	0	3,274	0	216	4,370
Other Oils > 400 Deg. For Petro. Feed Use	4	56	60	0	1,150	0	0	1,150	155	3,511	2,724	31	0	6,421	0	244	7,975
Special Naphthas	7	12	19	0	170	0	114	284	117	700	87	162	0	1,066	7	63	1,433
Lubricants	255	372	627	0	511	0	376	887	14	1,909	514	170	0	2,607	32	373	4,526
Bright Stock	-1	110	109	0	10	0	23	33	0	134	39	0	0	173	1	28	344
Neutral	93	245	338	0	375	0	269	644	0	649	424	83	0	1,156	32	266	2,411
Other Grades	163	17	180	0	126	0	84	210	14	1,126	51	87	0	1,278	-1	79	1,746
Wax	20	77	97	0	6	0	29	35	3	107	70	28	0	218	5	68	412
Microcrystalline	0	26	26	0	0	0	23	23	3	33	70	0	0	103	6	41	181
Crystalline-Fully Refined	9	14	23	0	5	0	2	7	0	33	70	0	0	103	6	41	181
Crystalline-Other	11	37	48	0	1	0	4	5	0	64	0	0	0	64	0	34	124
Petroleum Coke	1,121	48	1,169	23	1,835	326	878	3,062	274	2,406	1,711	108	0	4,434	310	3,116	12,142
Marketable	378	0	378	0	1,051	212	508	1,771	62	1,117	1,029	85	0	2,233	184	1,049	5,498
Catalyst	743	48	791	23	784	114	370	1,291	212	1,289	662	23	0	2,276	196	917	5,774
Asphalt	1,723	86	1,809	95	1,257	376	765	2,493	272	386	532	722	53	1,914	438	1,430	5,183
Road Oil	0	0	0	0	9	0	5	14	0	0	0	0	0	0	0	173	173
Still Gas	1,433	118	1,551	67	2,248	252	1,116	3,483	354	4,468	2,435	164	0	7,134	233	1,591	10,388
For Petrochemical Feedstock Use	28	0	28	0	1	0	0	1	0	411	101	0	0	512	0	0	541
For Other Uses	1,405	118	1,523	67	2,247	252	1,116	3,482	354	4,057	2,334	164	0	6,622	233	1,591	9,847
Miscellaneous Products	362	19	381	3	53	23	60	139	31	492	351	51	0	1,043	0	184	1,377
Total Output	37,690	3,442	41,132	1,929	53,698	7,646	26,756	90,221	14,578	111,238	63,849	1,885	1,379	276,786	11,581	100,000	688,119
Processing Gain(-) or Loss(-)¹	1,447	-2	-1,449	-38	-2,956	-244	-616	-3,754	-207	-4,443	-1,841	-42	-1	-4,544	-28	3,911	11,888

<sup>1</sup> Represents the arithmetic difference between input and output  
Notes: Total may not equal sum of components due to independent rounding  
See Explanatory Notes on negative product yield  
Source: See Explanatory Notes on Data Collection and Estimation

Table 17. Percent Refinery Yield of Petroleum Products by PAD District,<sup>1</sup> April 1982

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Dist. IV Rocky Mt.	Dist. V West Coast
Finished Motor Gasoline <sup>2</sup>	46.8	37.9	46.0	56.9	54.7	53.4	51.1	53.6	45.6	42.5	42.2	29.5	32.9	42.2	48.7	41.0	45.2
Finished Aviation Gasoline <sup>3</sup>	(s)	.0	(s)	.0	.1	.0	.1	.1	.8	.2	(s)	.0	.0	.2	.3	.2	.1
Liquefied Refinery Gases & Ethane	3.8	2.1	3.6	1.8	2.7	1.8	1.6	2.3	1.6	2.6	1.4	1.8	2.7	2.1	.4	2.3	2.3
Naphtha-Type Jet Fuel	1.9	2.7	2.0	0	.7	1.3	2.5	1.2	4.0	1.6	.5	3.2	18.3	1.6	4.3	2.6	1.8
Kerosene-Type Jet Fuel	2.4	1.7	2.4	7.6	5.8	4.0	3.1	4.9	6.9	6.0	12.1	.3	.8	8.1	4.8	9.6	6.9
Kerosene	.3	2.2	.5	0	1.0	.3	.5	.7	.1	1.8	2.0	(s)	-.3	1.7	.1	.3	1.0
Distillate Fuel Oil	20.1	26.2	20.6	19.8	19.7	24.7	26.6	22.3	24.3	21.1	18.6	27.2	35.7	20.8	28.0	15.4	20.4
Residual Fuel Oil	13.4	3.8	12.6	5.4	4.8	3.9	2.9	4.2	6.1	8.5	11.6	8.5	6.1	9.4	3.2	19.1	10.0
Naphtha < 400 Deg. F. Petro. Feed. Use	1.0	0	.9	0	1.0	0	.3	.7	2.2	3.4	.3	.0	0	2.0	0	.4	1.3
Other Oils > 400 Deg. F. Petro. Feed. Use	(s)	1.7	.2	0	2.5	0	.0	1.5	1.2	4.3	4.6	.7	0	4.0	0	.4	2.3
Special Naphthas	(s)	.4	.1	.0	.4	0	.5	.4	.9	.9	.1	3.5	0	.7	.1	.1	.4
Lubricants	.8	11.0	1.7	0	1.1	0	1.6	1.1	.1	2.3	.9	3.6	.0	1.6	.3	.6	1.3
Wax	.1	2.3	.3	0	(s)	0	.1	(s)	(s)	.1	.1	.6	0	.1	.1	.1	.1
Petroleum Coke	3.3	1.4	3.1	1.3	4.0	4.7	3.6	3.9	2.1	2.9	2.9	2.3	0	2.8	2.8	5.2	3.5
Asphalt	5.1	2.5	4.9	5.4	2.7	5.5	3.2	3.1	2.1	.5	.9	15.5	3.0	1.2	4.2	2.2	2.3
Road Oil	0	0	0	0	(s)	0	(s)	(s)	0	0	0	.0	0	.0	.1	.3	.1
Still Gas for Petro. Feed. Use	.1	0	.1	0	(s)	0	0	(s)	0	.5	.2	0	0	.3	.1	(s)	.2
Still Gas for Other Uses	4.2	3.5	4.1	3.8	4.8	3.7	4.6	4.7	2.8	5.0	4.0	3.5	1.2	4.3	4.1	4.8	4.5
Miscellaneous Products	1.1	.6	1.0	.2	.1	.3	.2	.2	.7	1.2	.8	.7	-.1	1.0	.2	.3	.7
Processing Gain(-) or Loss(+) <sup>4</sup>	-4.3	-.1	-3.9	-2.2	-6.2	-3.6	-2.5	-4.7	-1.6	-5.4	-3.2	-.9	-.2	-4.1	-1.4	-4.9	-4.3

<sup>1</sup> Based on crude oil input and net reruns of unfinished oils.<sup>2</sup> Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.<sup>3</sup> Based on finished aviation gasoline output plus net output of aviation gasoline blending components.<sup>4</sup> Represents the arithmetic difference between input and production.

(s) Less than 0.05 percent.

Note: Total may not equal sum of components due to independent rounding.

See Explanatory Notes on negative product yields.

Source: See Explanatory Notes on Data Collection and Estimation.

**Table 18. Refinery Receipts of Crude Oil by PAD District, April 1982**  
(Thousands of Barrels)

Method	PAD District I			PAD District II				PAD District III				PAD District IV		United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Texas Inland	Texas Gulf Coast	La., Ark.	No. La., Ark.	New Mexico	Total	PAD Dist. V West Coast
Pipeline														
Domestic	0	2,564	2,564	1,527	39,244	3,419	21,289	65,479	9,225	51,036	30,925	3,214	1,393	95,793
Foreign	0	112	112	207	7,625	2,912	967	11,711	1,161	8,871	2,894	432	0	13,358
Tanker														
Domestic	3,415	0	3,415	0	0	0	0	0	0	5,010	6,882	0	0	11,892
Foreign	23,270	0	23,270	0	0	0	0	0	0	10,176	10,201	0	0	20,377
Barge														
Domestic	0	177	177	0	1,127	0	0	1,127	0	3,797	4,571	8	0	8,376
Foreign	4,187	0	4,187	0	422	0	0	422	0	55	357	131	0	543
Tank Cars														
Domestic	69	269	338	0	0	0	0	0	0	0	0	22	0	112
Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trucks														
Domestic	0	337	337	119	241	12	1,041	1,413	856	212	445	806	505	2,824
Foreign	0	0	0	0	0	0	0	167	0	0	0	0	0	167
Total	3,484	3,347	6,831	1,646	40,612	3,431	22,330	68,019	10,081	60,055	42,823	4,050	1,898	118,907
Domestic	3,484	3,347	6,831	1,646	40,612	3,431	22,330	68,019	10,081	60,055	42,823	4,050	1,898	118,907
Foreign	27,457	112	27,569	207	8,047	2,912	967	12,133	1,328	19,102	13,452	563	0	34,445

Note: Total may not equal sum of components due to independent rounding.  
Source: See Explanatory Notes on Data Collection and Estimation.

**Table 19. Fuels Consumed at Refineries by PAD District, April 1982**  
(Thousands of Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV			United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky	Minn., Wisc., Dak.	Okl., Kans., Mo.	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark	New Mexico	Total	Rocky Mt.		Dist. V West Coast
Crude Oil (including lease condensate)	0	0	0	0	0	0	0	0	0	0	15	0	0	15	0	(s)
Liquefied Petroleum Gases <sup>1</sup>	19	14	33	10	295	29	39	373	24	124	257	0	0	404	7	391
Unfinished Oils	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	59	26	86	0	8	0	0	8	2	0	3	0	0	5	0	5
Residual Fuel Oil	643	60	703	9	260	50	56	376	3	198	62	11	0	276	117	291
Marketable Petroleum Coke	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	61
Catalyst Petroleum Coke	609	48	657	23	716	64	331	1,134	213	1,289	682	23	0	2,207	116	811
Still Gas	1,206	118	1,325	67	2,143	251	997	3,458	279	3,989	2,241	159	20	6,688	405	2,851
Other Fuels 2	0	0	0	0	66	0	0	66	6	0	(s)	0	0	6	0	29
Natural Gas (million cubic feet)	2,068	251	2,319	48	2,239	49	4,070	6,406	2,708	19,081	5,525	891	148	28,353	1,112	4,426
Coal (thousand short tons)	0	14	14	0	0	0	0	0	0	0	0	0	0	0	0	0
Purchased Electricity (million kWh)	347	36	384	15	342	45	724	1,127	77	640	350	22	7	1,096	63	50
Purchased Steam (million pounds)	688	9	696	0	462	0	0	462	16	0	720	0	0	736	0	176

<sup>1</sup> Includes liquefied refinery gases.

<sup>2</sup> Includes small quantities of other petroleum products (e.g., unfinished oils, kerosene, etc.) consumed at refineries.

(s) Less than 500 barrels except where noted

Note: Total may not equal sum of components due to independent rounding

Source: See Explanatory Notes on Data Collection and Estimation

Table 20. Imports of Crude Oil and Petroleum Products by PAD District, April 1982  
(Thousands of Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
<b>Crude Oil (including lease condensate) <sup>1 2</sup></b>	<b>26,536</b>	<b>9,803</b>	<b>42,523</b>	<b>1,049</b>	<b>4,467</b>	<b>84,377</b>
<b>Natural Gas Liquids</b>	<b>345</b>	<b>3,530</b>	<b>1,125</b>	<b>345</b>	<b>458</b>	<b>5,803</b>
Natural Gasoline and Isopentane	0	0	0	0	0	0
Plant Condensate	135	0	0	37	0	172
Liquefied Petroleum Gases and Ethane	210	3,530	1,125	308	458	5,631
Ethane	0	1,207	0	0	0	1,207
Propane	128	518	0	207	114	968
Butane	82	834	0	101	344	1,361
Butane-Propane Mixtures	0	0	1,125	0	0	1,125
Ethane-Propane Mixtures	0	971	0	0	0	971
<b>Other Liquids <sup>1</sup></b>	<b>1,903</b>	<b>96</b>	<b>1,459</b>	<b>0</b>	<b>174</b>	<b>3,633</b>
Unfinished Oils <sup>1</sup>	1,150	52	1,355	0	174	2,731
Motor Gasoline Blending Components	754	44	104	0	0	902
<b>Finished Petroleum Products</b>	<b>27,780</b>	<b>354</b>	<b>4,473</b>	<b>1</b>	<b>2,168</b>	<b>34,776</b>
Finished Motor Gasoline	4,193	2	242	0	885	5,323
Finished Leaded Motor Gasoline	3,091	0	(s)	0	513	3,604
Finished Unleaded Motor Gasoline	1,102	2	242	0	373	1,719
Finished Aviation Gasoline	0	0	0	0	0	0
Naphtha-Type Jet Fuel	182	0	0	0	0	182
Kerosene-Type Jet Fuel	1,242	0	0	0	0	1,242
Bonded Aircraft Fuel	0	0	0	0	0	0
Other	1,242	0	0	0	0	1,242
Kerosene	500	0	90	0	0	590
Distillate Fuel Oil	1,487	1	19	(s)	273	1,779
Bonded ships bunkers	0	0	0	0	0	0
For military offshore use	0	0	0	0	0	0
No. 2 fuel oil	1,487	1	19	(s)	273	1,779
No. 4 fuel oil	0	0	0	0	0	0
Residual Fuel Oil	18,898	250	3,008	0	707	22,863
Bonded ships bunkers	0	0	0	0	0	0
For military offshore use	0	0	0	0	0	0
Other	18,898	250	3,008	0	707	22,863
Naphtha < 400 Deg. for Petro. Feed. Use	707	0	802	0	130	1,639
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	337	76	250	(s)	173	836
Lubricants	116	10	60	(s)	(s)	187
Wax	2	4	1	0	0	7
Asphalt	114	5	0	0	0	118
Miscellaneous Products	2	6	(s)	0	(s)	9
<b>Total Imports</b>	<b>56,564</b>	<b>13,783</b>	<b>49,580</b>	<b>1,394</b>	<b>7,267</b>	<b>128,589</b>

<sup>1</sup> Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

<sup>2</sup> Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, April 1982  
(Thousands of Barrels)

Source	Crude Oil 1	LPG and Ethane	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
All PAD Districts														
<b>Arab OPEC</b>														
Algeria	2	0	0	489	0	0	0	0	2,047	0	0	2,537	2,539	85
Qatar	650	0	0	0	0	0	0	0	0	0	0	0	650	22
Saudi Arabia	14,377	0	0	0	0	0	0	0	0	0	0	0	14,377	479
United Arab Emirates	3,654	0	0	0	0	0	0	0	0	0	0	0	3,654	122
Subtotal Arab OPEC	18,684	0	0	489	0	0	0	0	2,047	0	0	2,537	21,221	707
<b>Other OPEC</b>														
Ecuador	650	0	0	0	0	0	0	0	311	0	0	311	961	32
Gabon	756	0	0	0	0	0	0	0	0	0	0	0	756	25
Indonesia	6,127	0	0	0	164	0	0	70	84	0	0	317	6,444	215
Nigeria	12,824	0	0	0	0	0	0	0	0	0	0	0	12,824	427
Venezuela	4,199	0	706	0	0	217	500	0	6,488	120	113	8,144	12,343	411
Subtotal Other OPEC	24,555	0	706	0	164	217	500	70	6,882	120	113	8,773	33,328	1,111
<b>Other</b>														
Angola	466	0	0	0	0	0	0	0	0	0	0	0	466	16
Australia	0	38	0	0	0	0	0	0	253	0	0	291	291	10
Bahamas	0	0	697	0	0	0	0	94	1,223	0	0	2,014	2,014	67
Brazil	770	0	0	0	111	0	0	0	366	0	0	477	1,247	42
Brunei	0	0	0	0	61	0	0	39	25	0	0	125	125	4
Canada	5,334	4,468	53	44	2	98	0	51	332	112	207	5,366	10,700	357
Congo	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
Egypt	1,764	0	0	0	0	0	0	0	0	315	(s)	315	2,079	69
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Malaysia	548	0	0	0	0	0	0	0	0	0	0	0	548	18
Mexico	12,400	1,125	0	0	(s)	0	90	49	343	0	1	1,608	14,007	467
Netherlands	1	0	0	74	840	0	0	0	(s)	21	(s)	934	936	31
Netherlands Antilles	0	0	388	0	0	131	0	0	4,892	0	0	5,411	5,411	180
Norway	1,780	0	0	0	0	0	0	0	0	0	0	0	1,780	59
Oman	2,550	0	0	0	0	0	0	0	0	0	0	0	2,550	85
People's Republic of China	0	0	174	0	641	0	0	0	0	160	0	975	975	33
Peru	767	0	0	0	0	0	0	34	284	0	0	318	1,085	36
Puerto Rico	0	0	296	0	273	230	0	0	0	0	288	1,088	1,088	36
Romania	0	0	0	0	498	0	0	0	0	0	0	498	498	17
Trinidad and Tobago	4,012	0	152	0	0	0	0	0	792	0	30	973	4,985	166
Tunisia	976	0	0	0	0	0	0	0	0	0	0	0	976	33
United Kingdom	6,966	(s)	0	18	436	0	0	0	3,382	68	(s)	437	7,402	247
Virgin Islands	0	0	0	0	1,255	567	0	1,383	0	0	1,303	7,975	7,975	266
Yugoslavia	4	0	0	0	0	0	0	0	0	0	0	0	4	(s)
Zaire	847	0	0	0	0	0	0	0	0	0	0	0	847	28
<b>Other Western Hemisphere</b>														
Other Eastern Hemisphere	1,682	(s)	264	264	766	182	0	60	1,332	19	(s)	1,018	1,290	43
Subtotal Other	41,138	5,631	2,025	413	5,159	1,206	90	1,709	13,934	716	2,020	32,903	74,040	2,468
<b>Total Imports</b>	<b>84,377</b>	<b>5,631</b>	<b>2,731</b>	<b>902</b>	<b>5,323</b>	<b>1,424</b>	<b>590</b>	<b>1,779</b>	<b>22,863</b>	<b>836</b>	<b>2,132</b>	<b>44,212</b>	<b>128,588</b>	<b>4,286</b>

See footnotes at end of table

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, April 1982  
(Thousands of Barrels)

Source	Crude Oil 1	LPG and Ethane	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
PAD District I														
<b>Arab OPEC</b>														
Algeria	1	0	0	489	0	0	0	0	2,038	0	0	2,528	2,529	84
Saudi Arabia	5,379	0	0	0	0	0	0	0	0	0	0	0	5,379	179
Subtotal Arab OPEC	5,380	0	0	489	0	0	0	0	2,038	0	0	2,528	7,908	264
<b>Other OPEC</b>														
Ecuador	0	0	0	0	0	0	0	0	311	0	0	311	311	10
Gabon	554	0	0	0	0	0	0	0	0	0	0	0	554	18
Indonesia	2,391	0	0	0	0	0	0	0	0	0	0	0	2,391	80
Nigeria	6,256	0	0	0	0	0	0	0	0	0	0	0	6,256	209
Venezuela	2,943	0	464	0	0	217	500	0	4,674	0	113	5,968	8,911	297
Subtotal Other OPEC	12,144	0	464	0	0	217	500	0	4,985	0	113	6,279	18,423	614
<b>Other</b>														
Angola	466	0	0	0	0	0	0	0	0	0	0	0	466	16
Australia	0	0	0	0	0	0	0	0	253	0	0	253	253	8
Bahamas	0	0	0	0	0	0	0	94	1,223	0	0	1,317	1,317	44
Brazil	770	0	0	0	111	0	0	0	366	0	0	477	1,247	42
Canada	0	210	1	(s)	0	98	0	10	283	23	144	768	768	26
Egypt	0	0	0	0	0	0	0	0	0	315	(s)	315	315	10
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	1,222	0	0	0	840	0	0	0	(s)	0	1	1,223	1,223	41
Netherlands	1	0	0	0	0	131	0	0	4,414	0	(s)	840	841	28
Netherlands Antilles	0	0	388	0	0	0	0	0	0	0	0	4,933	4,933	164
Norway	1,392	0	0	0	0	0	0	0	0	0	0	0	1,392	46
Peru	406	0	0	0	0	0	0	0	0	0	0	0	406	14
Puerto Rico	0	0	296	0	273	230	0	0	0	0	203	1,003	1,003	33
Romania	0	0	0	0	498	0	0	0	0	0	0	498	498	17
Trinidad and Tobago	467	0	0	0	0	0	0	0	465	0	0	465	465	31
United Kingdom	3,931	(s)	0	0	436	0	0	0	0	0	(s)	437	4,367	146
Virgin Islands	0	0	0	0	1,255	567	0	1,383	3,382	0	615	7,202	7,202	240
Yugoslavia	4	0	0	0	0	0	0	0	0	0	0	0	4	(s)
Zaire	353	0	0	0	0	0	0	0	0	0	0	0	353	12
Other Western Hemisphere	0	0	0	0	276	0	0	0	711	0	0	987	987	33
Other Eastern Hemisphere	0	(s)	0	264	504	182	0	0	777	0	(s)	1,727	1,727	58
Subtotal Other	9,011	210	685	264	4,193	1,206	0	1,487	11,875	337	963	21,222	30,233	1,008
<b>Total Imports</b>	26,536	210	1,150	754	4,193	1,424	500	1,487	18,898	337	1,076	30,028	56,564	1,885
PAD District II														
<b>Arab OPEC</b>														
Saudi Arabia	580	0	0	0	0	0	0	0	0	0	0	0	580	19
Subtotal Arab OPEC	580	0	0	0	0	0	0	0	0	0	0	0	580	19

See footnotes at end of table.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, April 1982

(Thousands of Barrels)  
(continued)

Source	Crude Oil 1	LPG and Ethane	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
PAD District II														
<b>Other OPEC</b>														
Ecuador	381	0	0	0	0	0	0	0	0	0	0	0	0	13
Nigeria	1,119	0	0	0	0	0	0	0	0	0	0	0	1,119	37
Venezuela	0	0	0	0	0	0	0	0	203	0	0	203	203	7
Subtotal Other OPEC	1,501	0	0	0	0	0	0	0	203	0	0	203	1,703	57
<b>Other</b>														
Canada	4,131	3,530	52	44	2	0	0	1	48	76	26	3,778	7,909	264
France	0	0	0	0	0	0	0	0	0	0	(s)	0	(s)	61
Mexico	1,831	0	0	0	0	0	0	0	0	0	0	0	1,831	12
Peru	361	0	0	0	0	0	0	0	0	0	0	0	361	14
United Kingdom	422	0	0	0	0	0	0	0	0	0	0	0	422	33
Other Eastern Hemisphere	978	0	0	0	0	0	0	0	0	0	0	0	978	383
Subtotal Other	7,723	3,530	52	44	2	0	0	1	48	76	26	3,778	11,500	459
<b>Total Imports</b>	9,803	3,530	52	44	2	0	0	1	250	76	26	3,981	13,783	
PAD District III														
<b>Arab OPEC</b>														
Algeria	1	0	0	0	0	0	0	0	9	0	0	9	10	22
Qatar	650	0	0	0	0	0	0	0	0	0	0	0	650	281
Saudi Arabia	8,419	0	0	0	0	0	0	0	0	0	0	0	8,419	111
United Arab Emirates	3,322	0	0	0	0	0	0	0	0	0	0	0	3,322	413
Subtotal Arab OPEC	12,393	0	0	0	0	0	0	0	9	0	0	9	12,402	
<b>Other OPEC</b>														
Ecuador	268	0	0	0	0	0	0	0	0	0	0	0	268	9
Gabon	202	0	0	0	0	0	0	0	0	0	0	0	202	7
Indonesia	304	0	0	0	0	0	0	0	0	0	0	0	304	10
Nigeria	5,449	0	0	0	0	0	0	0	0	0	0	0	5,449	182
Venezuela	1,255	0	242	0	0	0	0	0	1,611	120	0	1,973	3,229	108
Subtotal Other OPEC	7,478	0	242	0	0	0	0	0	1,611	120	0	1,973	9,451	315
<b>Other</b>														
Bahamas	0	0	697	0	0	0	0	0	0	0	0	697	697	23
Congo	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
Egypt	1,764	0	0	0	0	0	0	0	0	0	0	0	1,764	59
Mexico	9,346	1,125	0	0	(s)	0	90	19	343	0	1	1,577	10,924	364
Netherlands	0	0	0	74	0	0	0	0	478	21	0	94	94	3
Netherlands Antilles	0	0	0	0	0	0	0	0	0	0	0	478	478	16
Norway	388	0	0	0	0	0	0	0	0	0	0	0	388	13
Oman	2,550	0	0	0	0	0	0	0	0	0	0	0	2,550	85
Peru	0	0	0	0	0	0	0	0	241	0	0	241	241	8
Puerto Rico	0	0	0	0	0	0	0	0	0	0	85	85	85	3
Trinidad and Tobago	3,545	0	152	0	0	0	0	0	326	0	30	508	4,053	135
Tunisia	976	0	0	0	0	0	0	0	0	0	0	0	976	33
United Kingdom	2,613	0	0	0	0	0	0	0	0	0	(s)	(s)	2,613	87
Virgin Islands	0	0	0	18	0	0	0	0	0	68	667	773	773	26

See footnotes at end of table.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, April 1982  
(Thousands of Barrels)

Source	Crude Oil 1	LPG and Ethane	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
PAD District III														
<b>Other</b>														
Zaire .....	494	0	0	0	0	0	0	0	0	0	0	0	494	16
Other Western Hemisphere .....	272	0	0	13	0	0	0	0	0	19	(s)	32	303	10
Other Eastern Hemisphere .....	705	0	264	0	242	0	0	0	0	23	60	590	1,295	43
Subtotal Other .....	22,653	1,125	1,113	104	242	0	90	19	1,388	130	863	5,075	27,727	924
<b>Total Imports .....</b>	<b>42,523</b>	<b>1,125</b>	<b>1,355</b>	<b>104</b>	<b>242</b>	<b>0</b>	<b>90</b>	<b>19</b>	<b>3,008</b>	<b>250</b>	<b>863</b>	<b>7,057</b>	<b>49,580</b>	<b>1,653</b>
PAD District IV														
<b>Arab OPEC</b>														
United Arab Emirates .....	332	0	0	0	0	0	0	0	0	0	0	0	332	11
Subtotal Arab OPEC .....	332	0	0	0	0	0	0	0	0	0	0	0	332	11
<b>Other</b>														
Canada .....	717	308	0	0	0	0	0	(s)	0	(s)	37	346	1,062	35
Subtotal Other .....	717	308	0	0	0	0	0	(s)	0	(s)	37	346	1,062	35
<b>Total Imports .....</b>	<b>1,049</b>	<b>308</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>(s)</b>	<b>0</b>	<b>(s)</b>	<b>37</b>	<b>346</b>	<b>1,394</b>	<b>46</b>
PAD District V														
<b>Other OPEC</b>														
Indonesia .....	3,433	0	0	0	164	0	0	70	84	0	0	317	3,750	125
Subtotal Other OPEC .....	3,433	0	0	0	164	0	0	70	84	0	0	317	3,750	125
<b>Other</b>														
Australia .....	0	38	0	0	0	0	0	0	0	0	0	38	38	1
Brunei .....	0	0	0	0	61	0	0	39	25	0	0	125	125	4
Canada .....	486	420	0	0	0	0	0	40	1	13	(s)	475	961	32
France .....	0	0	0	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Malaysia .....	548	0	0	0	0	0	0	0	0	0	0	0	548	18
Mexico .....	0	0	0	0	(s)	0	0	30	0	0	0	30	30	1
People's Republic of China .....	0	0	174	0	641	0	0	0	0	160	0	975	975	33
Peru .....	0	0	0	0	0	0	0	34	43	0	0	77	77	3
Other Eastern Hemisphere .....	0	0	0	0	20	0	0	60	554	0	130	763	763	25
Subtotal Other .....	1,034	458	174	0	722	0	0	203	623	173	130	2,483	3,517	117
<b>Total Imports .....</b>	<b>4,467</b>	<b>458</b>	<b>174</b>	<b>0</b>	<b>885</b>	<b>0</b>	<b>0</b>	<b>273</b>	<b>707</b>	<b>173</b>	<b>130</b>	<b>2,800</b>	<b>7,267</b>	<b>242</b>

1 Includes crude oil imported for storage in the Strategic Petroleum Reserve.

2 Includes aviation gasoline, waxes, asphalt, lubricants, natural gasoline, isopentane, plant condensate, naphthas less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 22. Exports of Crude Oil and Petroleum Products by PAD District, April 1982  
(Thousands of Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) 1	0	757	0	0	4,477	5,234
Liquefied Petroleum Gases and Ethane	62	765	1,221	0	251	2,298
Ethane	(s)	0	0	0	0	(s)
Propane	27	305	831	0	101	1,264
Butane	34	460	389	0	150	1,034
Butane-Propane Mixtures	0	0	0	0	0	0
Finished Motor Gasoline	1	1	865	0	123	990
Naphtha-Type Jet Fuel	(s)	0	22	0	(s)	22
Kerosene-Type Jet Fuel	0	0	0	0	44	44
Kerosene	(s)	0	20	0	(s)	20
Distillate Fuel Oil	1	0	1,102	0	816	1,919
Residual Fuel Oil	(s)	0	3,831	0	3,181	7,012
Naphtha < 400 Deg. for Petrochem. Feedstock	61	5	57	1	85	210
Other Oils > 400 Deg. for Petrochem. Feedstock	(s)	27	415	0	0	442
Special Naphthas	4	1	427	0	1	433
Lubricants	176	10	272	(s)	54	513
Wax	5	1	5	(s)	3	14
Petroleum Coke	517	572	1,597	(s)	1,697	4,382
Asphalt	1	1	1	(s)	2	4
Miscellaneous Products	16	1	8	(s)	3	27
Total Product Exports	842	1,384	9,842	1	6,261	18,331
Total Exports	842	2,141	9,842	1	10,738	23,565

1 Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange on a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 23. Exports of Crude Oil and Petroleum Products by Destination, April 1982  
(Thousands of Barrels)

Destination	Crude Oil 1	LPG and Ethane	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Wax	Petroleum Coke	Asphalt	Other	Total	Total (Daily Average)
Argentina	0	(s)	0	0	0	0	(s)	7	(s)	50	(s)	2	59	2
Australia	0	2	0	0	0	0	12	7	(s)	(s)	(s)	5	26	1
Bahamas	0	7	1	(s)	0	1,489	0	2	0	0	0	(s)	1,499	50
Bahrain	0	0	0	0	0	0	(s)	(s)	0	60	0	0	60	2
Belgium & Luxembourg	0	1	(s)	0	0	0	0	12	(s)	749	0	(s)	763	25
Brazil	0	3	0	0	0	0	(s)	5	0	23	0	1	32	1
Cameroon	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Canada	757	768	1	0	0	491	3	46	3	488	1	45	2,603	87
Chile	0	(s)	0	0	0	0	(s)	1	(s)	0	0	1	2	(s)
China (Taiwan)	0	0	0	0	0	310	0	15	(s)	2	(s)	1	328	11
Colombia	0	3	0	0	(s)	0	0	13	(s)	(s)	0	1	17	1
Costa Rica	0	13	0	0	0	0	(s)	0	(s)	0	0	(s)	17	1
Denmark	0	(s)	0	0	0	0	0	(s)	(s)	0	0	(s)	1	(s)
Dominican Republic	0	18	0	0	0	0	(s)	3	(s)	0	0	1	22	1
Ecuador	0	0	0	0	0	0	0	1	(s)	0	0	2	4	(s)
Egypt	0	0	0	0	0	0	0	2	(s)	0	0	1	2	(s)
El Salvador	0	(s)	0	0	0	0	0	1	(s)	0	0	1	2	(s)
Finland	0	0	0	0	0	0	0	(s)	(s)	0	0	1	1	(s)
France	0	326	0	0	(s)	0	(s)	1	(s)	66	0	178	572	19
French Pacific Isl.	0	0	16	0	(s)	0	0	1	0	0	0	(s)	17	1
Ghana	0	0	0	0	(s)	0	0	(s)	0	41	0	(s)	41	1
Greece	0	3	0	0	0	0	0	1	0	0	0	1	4	(s)
Guatemala	0	42	0	0	0	0	(s)	3	1	0	0	21	67	2
Guinea	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Honduras	0	0	0	0	0	0	(s)	0	(s)	0	(s)	1	1	(s)
Hong Kong	0	1	0	0	0	202	0	1	(s)	0	(s)	3	207	7
India	0	0	0	0	0	0	0	(s)	(s)	0	0	(s)	(s)	(s)
Indonesia	0	0	0	0	(s)	0	0	14	(s)	0	0	(s)	15	(s)
Iran	0	0	0	0	0	0	0	(s)	(s)	0	0	0	(s)	(s)
Israel	0	(s)	0	0	0	0	0	1	0	(s)	0	(s)	1	(s)
Italy	0	158	0	0	0	0	(s)	1	(s)	268	0	193	620	21
Ivory Coast	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Jamaica	0	6	0	0	0	0	0	(s)	0	0	0	1	8	(s)
Japan	0	(s)	0	0	972	23	1	9	2	712	(s)	3	1,724	57
Jordan	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
Korea, Republic of	0	0	0	0	66	369	(s)	2	(s)	(s)	0	(s)	438	15
Kuwait	0	0	0	0	0	0	(s)	1	(s)	0	0	(s)	1	(s)
Lebanon	0	(s)	0	0	0	0	0	1	(s)	0	0	(s)	1	(s)
Liberia	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Malaysia	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	3
Mexico	0	460	399	44	829	0	9	84	(s)	75	2	13	1,914	64
Netherlands	0	35	0	0	0	1,901	5	7	(s)	469	(s)	35	2,453	82
Netherlands Antilles	0	1	0	0	(s)	0	0	1	(s)	0	0	(s)	2	(s)
New Zealand	0	0	0	0	0	0	0	(s)	0	0	0	1	2	(s)
Nicaragua	0	(s)	0	0	0	0	0	4	(s)	0	(s)	(s)	4	(s)
Nigeria	0	0	0	0	0	39	0	1	0	0	0	(s)	40	1
Norway	0	0	0	0	0	0	0	0	0	109	0	(s)	109	4
Norway	0	1	0	0	0	0	0	(s)	0	0	0	(s)	1	(s)
Pacific Trust Terr.	0	1	0	0	49	0	0	15	0	0	0	1	66	2
Panama	0	0	0	0	0	0	(s)	3	(s)	0	0	(s)	3	(s)
Peru	0	(s)	0	0	0	0	(s)	8	(s)	1	(s)	(s)	392	13
Philippines	0	0	0	0	0	383	(s)	0	(s)	0	0	0	0	0

See footnotes at end of table.

Table 23. Exports of Crude Oil and Petroleum Products by Destination, April 1982  
(Thousands of Barrels)  
(continued)

Destination	Crude Oil <sup>1</sup>	LPG and Ethane	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Napthas	Lubri-cants	Wax	Petro-leum Coke	Asphalt	Other	Total	Total (Daily Average)
Puerto Rico	2,650	163	574	22	0	313	397	10	1	96	(s)	7	4,234	141
Rep. of South Africa	0	(s)	0	0	0	0	0	14	(s)	0	(s)	3	17	1
Saudi Arabia	0	13	0	0	0	0	2	24	0	0	(s)	4	43	1
Singapore	0	(s)	0	0	(s)	240	2	10	0	0	(s)	3	256	9
Spain	0	1	0	0	0	0	0	(s)	(s)	559	0	53	613	20
Surinam	0	0	0	0	0	0	0	0	0	8	0	(s)	8	(s)
Sweden	0	0	0	0	0	0	0	1	(s)	99	0	1	100	3
Switzerland	0	(s)	0	0	0	0	0	1	0	0	0	1	2	(s)
Thailand	0	(s)	0	0	0	518	0	1	0	0	(s)	2	521	17
Trinidad and Tobago	0	0	0	0	0	0	0	1	0	1	0	(s)	2	(s)
Turkey	0	197	0	0	0	0	0	(s)	0	0	0	(s)	197	7
United Arab Emirates	0	(s)	0	0	0	0	0	1	0	60	0	(s)	61	2
United Kingdom	0	2	0	0	1	734	(s)	41	(s)	36	(s)	10	826	28
U.S.S.R.	0	0	0	0	0	0	0	119	0	272	0	18	409	14
Uruguay	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
Venezuela	0	13	0	0	0	0	(s)	1	(s)	(s)	(s)	2	17	1
Virgin Islands	1,827	0	0	0	0	0	0	(s)	0	0	0	0	1,827	61
West Germany	0	(s)	0	0	0	0	(s)	2	(s)	135	(s)	3	141	5
Yugoslavia	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Other	0	58	0	0	(s)	0	(s)	9	(s)	0	(s)	2	69	2
Total	5,234	2,298	990	66	1,919	7,012	433	513	14	4,382	4	699	23,565	786

<sup>1</sup> Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange, on a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

(s) Less than 500 barrels or less than 500 barrels per day.  
Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, April 30, 1982  
(Thousands of Barrels)

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV			United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V West Coast
Crude Oil (incl. lease condensate) <sup>1</sup>																	
Refinery	--	--	14,702	--	--	--	--	16,786	--	--	--	--	--	47,374	2,951	24,958	106,771
Tank Farms and Pipelines	--	--	2,926	--	--	--	--	63,247	--	--	--	--	--	93,525	11,575	26,209	197,482
Leases	--	--	63	--	--	--	--	1,590	--	--	--	--	--	17,914	1,460	1,694	22,721
Strategic Petroleum Reserve <sup>2</sup>	--	--	0	--	--	--	--	0	--	--	--	--	--	255,534	0	0	255,534
Alaskan In-Transit	--	--	0	--	--	--	--	0	--	--	--	--	--	0	0	28,500	28,500
Total	--	--	17,691	--	--	--	--	81,623	--	--	--	--	--	414,347	15,986	81,361	611,008
Petroleum Products																	
Refinery	39,353	4,515	43,868	1,015	41,921	8,059	22,233	73,228	10,914	79,620	45,178	5,147	1,415	142,274	16,000	66,867	342,237
Bulk Terminal	89,377	5,673	95,050	3,612	34,711	8,227	11,406	57,956	4,055	33,782	6,637	3,632	505	48,611	2,472	20,216	224,305
Pipeline	25,228	1,449	26,677	1,222	11,582	3,297	15,873	31,974	8,315	8,952	6,719	13,156	1,344	38,486	2,870	3,907	103,914
Natural Gas Processing Plant	329	267	596	0	1,927	145	19,175	21,248	5,016	26,239	9,698	3,794	1,081	45,827	260	458	68,389
Total	154,287	11,904	166,191	5,849	90,141	19,728	68,687	184,406	28,300	148,593	68,232	25,729	4,345	275,198	21,602	91,448	738,845
Natural Gasoline and Isopentane																	
Refinery	1	0	1	0	31	49	144	224	67	761	197	2	13	1,040	17	49	1,331
Pipeline	0	0	0	0	38	0	203	241	230	72	0	48	45	395	157	20	813
Natural Gas Processing Plant	1	29	30	0	15	17	1,476	1,508	381	5,324	477	44	92	6,317	42	17	7,914
Total	2	29	31	0	84	66	1,823	1,973	678	6,157	674	94	150	7,752	216	86	10,058
Unfractionated Stream																	
Pipeline	0	0	0	0	78	0	30	108	0	28	28	0	0	56	0	0	164
Natural Gas Processing Plant	0	0	0	0	101	2	1,335	1,438	335	1,597	186	5	123	2,246	34	2	3,720
Total	0	0	0	0	179	2	1,365	1,546	335	1,625	214	5	123	2,302	34	2	3,884
Plant Condensate																	
Refinery	0	0	0	0	6	0	0	6	10	93	0	84	0	187	0	0	193
Pipeline	0	0	0	0	49	0	0	0	860	277	49	5	17	1,208	0	0	1,208
Natural Gas Processing Plant	0	0	0	0	2	0	4	5	40	34	12	11	1	98	3	0	106
Total	0	0	0	0	8	0	4	11	910	404	61	100	18	1,493	3	0	1,507
Ethane																	
Refinery	0	0	0	0	8	0	0	8	0	542	0	0	0	542	0	0	550
Bulk Terminal	0	0	0	0	91	0	40	131	0	1,007	0	0	0	1,007	0	0	1,138
Pipeline	0	0	0	0	16	1,019	137	1,172	196	79	121	0	3	399	0	0	1,571
Natural Gas Processing Plant	0	0	0	0	25	0	550	575	142	1,351	441	1	0	1,935	(s)	(s)	2,510
Total	0	0	0	0	140	1,019	727	1,886	338	2,979	562	1	3	3,883	(s)	(s)	5,769
Propane for Petrochemical Feedstock Use																	
Refinery	37	0	37	0	64	0	1	65	0	8	385	0	0	393	1	0	496
Total	37	0	37	0	64	0	1	65	0	8	385	0	0	393	1	0	496
Propane for Other Uses																	
Refinery	365	3	368	1	539	29	223	792	193	525	792	3	4	1,517	71	135	2,883
Bulk Terminal	151	0	151	0	695	94	495	1,284	134	14,965	0	33	0	15,132	27	0	16,594
Pipeline	876	251	1,127	24	1,516	189	1,746	3,475	539	77	248	598	166	1,628	139	0	6,369
Natural Gas Processing Plant	278	234	513	0	1,675	108	12,489	14,271	2,796	5,180	5,369	3,497	314	17,156	143	180	32,263
Total	1,670	488	2,159	25	4,425	420	14,953	19,822	3,662	20,747	6,409	4,131	484	35,433	380	315	58,109

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, April 30, 1982  
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV			United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V West Coast
Butane for Petro. Feed. Use																	
Refinery	0	0	0	0	0	10	0	10	0	0	20	0	1	0	21	1	3
Total	0	0	0	0	0	10	0	10	0	0	20	0	1	0	21	1	3
Butane for Other Uses																	
Refinery	118	3	121	58	377	38	312	785	103	528	791	2	2	1,426	122	548	3,002
Bulk Terminal	73	0	73	0	195	0	157	352	106	2,782	0	0	0	2,888	0	0	3,313
Pipeline	37	69	106	36	921	15	197	1,169	1,020	33	5	126	73	1,257	72	0	2,604
Natural Gas Processing Plant	35	2	37	0	100	15	1,316	1,431	590	3,481	2,195	106	87	6,460	32	181	8,142
Total	263	74	337	94	1,593	68	1,982	3,737	1,819	6,824	2,991	234	162	12,031	226	729	17,061
Butane-Propane Mixtures for Petro. Feed. Use																	
Refinery	0	0	0	0	0	0	0	0	1	0	2	0	0	0	3	0	3
Total	0	0	0	0	0	0	0	0	1	0	2	0	0	0	3	0	3
Butane-Propane Mixtures for Other Uses																	
Refinery	0	0	0	0	1	0	0	1	0	5	12	1	9	27	4	178	210
Bulk Terminal	0	0	0	0	11	0	1	12	0	0	0	0	0	0	0	0	12
Pipeline	0	0	0	0	0	0	15	15	612	26	10	0	1	649	0	0	664
Natural Gas Processing Plant	0	0	0	0	(s)	0	24	24	50	7	7	(s)	0	64	(s)	3	92
Total	0	0	0	0	12	0	40	52	662	38	29	1	10	740	4	181	978
Ethane-Propane Mixtures																	
Refinery	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1
Bulk Terminal	0	0	0	0	0	0	7	7	430	5,147	0	0	0	5,577	0	0	5,584
Pipeline	0	0	0	0	66	0	569	635	1,003	126	2	0	128	1,259	173	0	2,067
Natural Gas Processing Plant	0	0	0	0	0	0	1,130	1,130	260	6,762	0	(s)	458	7,480	0	0	8,610
Total	0	0	0	0	66	0	1,706	1,772	1,693	12,036	2	(s)	586	14,317	173	0	16,262
Isobutane																	
Refinery	4	1	5	45	162	21	156	384	152	219	308	10	2	691	51	30	1,161
Bulk Terminal	0	0	0	0	82	0	113	195	20	768	0	0	0	788	0	0	983
Pipeline	0	0	0	0	582	1	87	670	98	78	0	50	60	286	45	0	1,001
Natural Gas Processing Plant	1	1	2	0	8	4	851	863	140	1,744	1,009	92	5	2,990	1	75	3,930
Total	5	2	7	45	834	26	1,207	2,112	410	2,809	1,317	152	67	4,755	97	105	7,075
Other Hydrocarbons and Alcohol																	
Refinery	0	7	7	0	114	0	1	115	7	70	12	0	0	89	0	3	214
Total	0	7	7	0	114	0	1	115	7	70	12	0	0	89	0	3	214
Unfinished Oils																	
Refinery	3,997	567	4,564	38	3,194	124	1,388	4,744	1,234	7,845	5,457	181	134	14,851	592	5,279	30,030
Naphthas and Lighter	1,612	42	1,654	0	4,205	4	758	4,967	472	6,423	1,301	40	0	8,236	508	4,018	9,383
Kerosene and Lighter Gas Oils	7,745	367	8,112	95	3,936	224	2,941	7,196	1,604	11,809	6,824	377	0	20,614	1,230	12,426	49,578
Heavy Gas Oils	1,522	249	1,771	3	3,660	23	1,861	5,547	253	3,995	2,435	36	10	6,729	526	5,385	13,958
Residuum	14,876	1,225	16,101	136	14,995	375	6,948	22,454	3,563	30,072	16,017	634	144	50,430	2,856	27,108	115,949
Total																	

See footnotes at end of table

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, April 30, 1982  
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V West Coast
Motor Gasoline Blending Components																	
Refinery	4,319	211	4,530	46	5,623	740	2,565	8,974	1,522	8,799	6,533	99	93	17,046	3,119	7,826	41,495
Bulk Terminal	255	2	257	6	203	1	252	462	116	419	0	1	0	536	0	179	1,434
Pipeline	0	0	0	0	29	2	237	268	67	0	0	0	0	67	0	0	335
Total	4,574	213	4,787	52	5,855	743	3,054	9,704	1,705	9,218	6,533	100	93	17,649	3,119	8,005	43,264
Aviation Gasoline Blending Components																	
Refinery	0	0	0	0	164	0	17	181	37	108	36	0	0	181	0	177	539
Total	0	0	0	0	164	0	17	181	37	108	36	0	0	181	0	177	539
Total Finished Motor Gasoline																	
Refinery	5,796	402	6,198	74	5,653	2,015	3,743	11,485	2,251	10,002	4,664	957	174	18,048	2,685	7,241	45,657
Bulk Terminal	32,789	2,695	35,484	1,949	16,810	3,634	5,055	27,448	1,903	3,571	1,464	2,336	350	9,624	1,632	8,552	82,740
Pipeline	14,491	773	15,264	731	5,759	1,189	6,906	14,585	1,682	4,959	3,729	7,404	281	18,055	1,510	1,746	51,160
Natural Gas Processing Plant	14	0	14	0	0	0	0	0	0	0	0	0	0	0	3	0	17
Total Finished Motor Gasoline	53,090	3,870	56,960	2,754	28,222	6,838	15,704	53,518	5,836	18,532	9,857	10,697	805	45,727	5,830	17,539	179,574
Finished Leaded Motor Gasoline																	
Refinery	2,616	230	2,846	38	3,118	933	1,928	6,017	1,192	4,843	2,417	822	131	9,405	1,785	3,277	23,330
Bulk Terminal	15,061	1,351	16,412	961	8,255	2,098	2,833	14,147	975	2,135	701	1,080	232	5,123	999	4,507	41,188
Pipeline	7,354	322	7,676	392	2,892	720	3,752	7,756	739	2,507	1,984	3,523	152	8,905	1,002	767	26,106
Natural Gas Processing Plant	14	0	14	0	0	0	0	0	0	0	0	0	0	0	2	0	16
Total	25,045	1,903	26,948	1,391	14,265	3,751	8,513	27,920	2,906	9,485	5,102	5,425	515	23,433	3,788	8,551	90,640
Finished Unleaded Motor Gasoline																	
Refinery	3,180	172	3,352	36	2,535	1,082	1,815	5,468	1,059	5,159	2,247	135	43	8,643	898	3,958	22,319
Bulk Terminal	17,712	1,344	19,056	988	8,529	1,536	2,220	13,273	928	1,436	763	1,256	118	4,501	633	4,045	41,508
Pipeline	7,137	451	7,588	339	2,867	468	3,154	6,828	926	2,452	1,745	3,881	129	9,133	508	979	25,036
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	28,029	1,967	29,996	1,363	13,931	3,086	7,189	25,569	2,913	9,047	4,755	5,272	290	22,277	2,040	8,982	88,864
Gasohol																	
Refinery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	8
Bulk Terminal	16	0	16	0	26	0	2	28	0	0	0	0	0	0	0	0	44
Pipeline	0	0	0	0	0	1	0	1	17	0	0	0	0	17	0	0	18
Total	16	0	16	0	26	1	2	29	17	0	0	0	0	17	2	6	70
Finished Aviation Gasoline																	
Refinery	23	0	23	0	142	0	67	209	22	298	177	0	0	497	48	169	946
Bulk Terminal	398	39	437	1	201	51	64	317	63	33	6	35	42	179	11	402	1,346
Pipeline	5	0	5	0	0	0	30	30	0	1	0	0	0	1	0	0	36
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	94	0	0	0	0	94	0	0	94
Total	426	39	465	1	343	51	161	556	179	332	183	35	42	771	59	571	2,422
Naphtha-Type Jet Fuel																	
Refinery	234	56	290	0	210	29	562	801	227	787	564	153	232	1,963	169	936	4,159
Bulk Terminal	25	0	25	3	32	47	139	221	134	4	0	48	0	186	18	88	538
Pipeline	312	0	312	3	1	83	103	190	101	0	1	129	338	569	123	467	1,661
Total	571	56	627	6	243	159	804	1,212	462	791	565	330	570	2,718	310	1,491	6,358

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, April 30, 1982  
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV			United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.		West Coast
Kerosene-Type Jet Fuel																	
Refinery	1,114	11	1,125	55	1,167	89	300	1,611	331	3,144	2,526	10	23	6,034	345	4,051	13,166
Bulk Terminal	4,855	179	5,034	65	2,043	432	925	3,465	236	1,515	65	35	30	1,881	144	2,489	13,013
Pipeline	3,344	98	3,442	94	913	133	1,902	3,042	1,059	1,152	757	1,399	66	4,433	122	567	11,606
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2
Total	9,313	288	9,601	214	4,123	654	3,127	8,118	1,628	5,811	3,348	1,444	119	12,350	611	7,107	37,787
Kerosene																	
Refinery	206	105	311	0	604	29	264	897	40	1,309	446	6	57	1,858	27	94	3,187
Bulk Terminal	2,748	248	2,996	191	837	55	11	1,094	9	563	57	23	0	652	29	48	4,819
Pipeline	537	24	561	100	96	0	298	494	6	122	325	60	0	513	0	15	1,583
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	2	0	0	(s)	1	3	0	0	3
Total	3,491	377	3,868	291	1,537	84	573	2,485	57	1,994	828	89	58	3,026	56	157	9,592
Total Distillate Fuel Oils																	
Refinery	3,647	510	4,157	54	4,404	1,440	3,482	9,380	1,017	8,510	4,430	1,041	338	15,336	2,003	5,311	36,187
Bulk Terminal	23,268	1,834	25,102	916	9,299	2,640	3,114	15,969	888	1,986	1,329	921	78	5,202	610	4,750	51,633
Pipeline	5,624	221	5,845	221	1,545	666	3,409	5,841	823	1,921	1,444	3,337	166	7,691	529	1,076	20,982
Natural Gas Processing Plant	0	0	0	0	0	0	(s)	(s)	1	0	(s)	0	0	1	0	0	1
Total Distillate Fuel Oil	32,539	2,565	35,104	1,191	15,248	4,746	10,005	31,190	2,729	12,417	7,203	5,299	582	28,230	3,142	11,137	108,803
Dist. Fuel Oils Less No. 4 Fuel Oil																	
Refinery	3,647	500	4,147	54	4,385	1,440	3,482	9,361	954	8,210	4,270	970	259	14,663	1,993	5,265	35,429
Bulk Terminal	22,077	1,834	23,911	896	9,226	2,639	3,114	15,875	888	1,980	1,329	920	78	5,195	610	4,733	50,324
Pipeline	5,624	221	5,845	221	1,545	666	3,409	5,841	823	1,921	1,444	3,337	166	7,691	529	1,076	20,982
Natural Gas Processing Plant	0	0	0	0	0	0	(s)	(s)	1	0	(s)	0	0	1	0	0	1
Total	31,348	2,555	33,903	1,171	15,156	4,745	10,005	31,077	2,666	12,111	7,043	5,227	503	27,550	3,132	11,074	106,736
No. 4 Fuel Oil																	
Refinery	0	10	10	0	19	0	0	19	63	300	160	71	79	673	10	46	758
Bulk Terminal	1,191	0	1,191	20	73	1	0	94	0	6	0	1	0	7	0	17	1,309
Total	1,191	10	1,201	20	92	1	0	113	63	306	160	72	79	680	10	63	2,067
Residual Fuel Oils																	
Refinery	3,084	200	3,284	85	2,299	400	507	3,291	316	4,863	3,574	310	54	9,117	523	7,530	23,745
Bulk Terminal	20,185	39	20,224	176	1,878	172	680	2,906	7	994	3,338	38	0	4,377	0	2,355	29,862
Pipeline	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	16	17
Total	23,269	239	23,508	261	4,177	572	1,187	6,197	323	5,858	6,912	348	54	13,495	523	9,901	53,624
Naphtha < 400 Deg. Petro. Feedstock																	
Refinery	147	0	147	0	90	0	60	150	85	1,674	458	10	0	2,227	0	210	2,734
Total	147	0	147	0	90	0	60	150	85	1,674	458	10	0	2,227	0	210	2,734
Other Oils > 400 Deg. Petro. Feedstock																	
Refinery	2	103	105	0	205	0	1	206	108	582	273	26	0	989	0	157	1,457
Total	2	103	105	0	205	0	1	206	108	582	273	26	0	989	0	157	1,457

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, April 30, 1982  
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV		United States			
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	PAD	
																	Dist. IV	West Coast
<b>Special Naphthas</b>																		
Refinery .....	20	40	60	1	148	0	197	346	34	1,150	80	148	0	1,412	4	252	2,074	
Bulk Terminal .....	1,000	8	1,008	75	160	22	39	296	0	0	0	8	0	8	0	54	1,366	
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	129	0	0	0	0	129	0	0	129	
Total .....	1,020	48	1,068	76	308	22	236	642	163	1,150	80	156	0	1,549	4	306	3,569	
<b>Lubricants</b>																		
Refinery .....	143	459	602	0	56	0	69	125	0	268	64	0	0	332	6	55	1,120	
Bright Stock .....	695	335	1,030	0	614	0	426	1,040	0	1,728	849	70	0	2,647	86	599	5,402	
Neutral .....	784	169	953	0	180	0	120	300	37	2,140	298	131	0	2,606	8	109	3,976	
Other .....	1,084	231	1,315	14	441	20	72	547	9	28	200	85	5	327	1	665	2,855	
Bulk Terminals .....	2,706	1,194	3,900	14	1,291	20	687	2,012	46	4,164	1,411	286	5	5,912	101	1,428	13,353	
Total .....																		
<b>Wax, Microcrystalline</b>																		
Refinery .....	0	45	45	0	0	0	15	15	26	23	8	0	0	57	0	0	117	
Total .....	0	45	45	0	0	0	15	15	26	23	8	0	0	57	0	0	117	
<b>Wax, Crystalline--Fully Refined</b>																		
Refinery .....	12	26	38	0	27	0	23	50	0	55	125	0	0	180	9	35	312	
Total .....	12	26	38	0	27	0	23	50	0	55	125	0	0	180	9	35	312	
<b>Wax, Crystalline--Other</b>																		
Refinery .....	4	64	68	0	3	0	7	10	0	133	0	0	0	133	0	24	235	
Total .....	4	64	68	0	3	0	7	10	0	133	0	0	0	133	0	24	235	
<b>Petroleum Coke</b>																		
Refinery .....	1,077	0	1,077	0	428	389	197	1,014	2	121	530	75	0	728	540	1,434	4,793	
Total .....	1,077	0	1,077	0	428	389	197	1,014	2	121	530	75	0	728	540	1,434	4,793	
<b>Asphalt</b>																		
Refinery .....	2,304	500	2,804	459	3,522	2,387	1,790	8,158	707	669	753	1,311	270	3,710	3,301	2,288	20,261	
Bulk Terminal .....	2,469	398	2,867	216	1,714	1,055	241	3,226	0	0	166	51	0	217	0	516	6,826	
Total .....	4,773	898	5,671	675	5,236	3,442	2,031	11,384	707	669	919	1,362	270	3,927	3,301	2,804	27,087	
<b>Road Oil</b>																		
Refinery .....	0	0	0	0	16	0	6	22	0	0	0	2	0	2	4	26	54	
Total .....	0	0	0	0	16	0	6	22	0	0	0	2	0	2	4	26	54	
<b>Miscellaneous Products</b>																		
Refinery .....	341	40	381	1	69	19	30	119	56	413	274	61	0	804	0	289	1,593	
Bulk Terminal .....	77	0	77	0	19	4	1	24	0	0	12	18	0	30	0	118	249	
Pipeline .....	2	13	15	13	22	0	4	39	19	0	0	0	0	19	0	0	73	
Natural Gas Processing Plant .....	0	0	0	0	2	0	(s)	2	56	758	(s)	36	(s)	852	1	0	855	
Total .....	420	53	473	14	112	23	35	184	131	1,171	286	115	(s)	1,705	1	407	2,770	
<b>Total Stocks, All Oils .....</b>																		
	--	--	183,882	--	--	--	--	266,029	--	--	--	--	--	689,545	37,588	172,809	1,349,853	

1 Crude oil data are not collected by refinery district.

2 Includes 33726 thousands of barrels of domestic crude oil.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

-- Not Applicable.

Table 25. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, April 1982  
(Thousands of Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	II	III	I	I	III	IV	I	II	IV	V	II	III	V	I	III
<b>Crude Oil</b> .....	0	0	0	140	0	0	0	581	1,265	0	0	0	0	2,592	18,785
<b>Petroleum Products</b> .....	7,266	230	2,855	5,167	2,045	78,404	16,932	19	2,863	0	928	0	1,080	42	0
Natural Gasoline and Isopentane .....	0	0	0	292	0	0	1,049	0	0	0	292	0	0	0	0
Unfractionated Stream .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant Condensate .....	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases .....	7	0	760	1,618	91	1,054	5,515	0	0	0	0	0	0	0	0
Unfinished Oils .....	7	0	0	0	0	1,074	48	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components .....	0	0	0	0	0	0	853	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline .....	5,337	0	1,353	1,369	1,090	46,274	4,630	0	1,224	0	438	0	691	0	0
Finished Leaded Motor Gasoline .....	2,947	0	576	793	602	21,384	2,156	0	426	0	302	0	465	0	0
Finished Unleaded Motor Gasoline .....	2,390	0	777	576	481	24,890	2,467	0	798	0	136	0	226	0	0
Gasohol .....	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0
Finished Aviation Gasoline .....	15	0	0	0	5	279	43	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel .....	60	0	0	79	0	767	0	0	175	0	20	0	83	0	0
Kerosene-Type Jet Fuel .....	89	0	86	23	618	7,630	1,946	0	171	0	0	0	132	0	0
Kerosene .....	53	0	10	0	0	456	48	0	0	0	0	0	0	0	0
Distillate Fuel Oil .....	1,652	0	253	496	241	15,304	1,828	0	283	0	178	0	174	0	0
Distillate Fuel Oil Less No. 4 .....	1,652	0	253	453	241	15,199	1,828	0	283	0	178	0	174	0	0
No. 4 Fuel Oil .....	0	0	0	43	0	105	0	0	0	0	0	0	0	0	0
Residual Fuel Oil .....	0	0	148	864	0	3,899	229	0	506	0	0	0	0	11	0
Naphtha and Other Oils for Petro. ....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feedstock .....	21	145	17	0	0	23	93	0	30	0	0	0	0	0	0
Special Naphthas .....	0	0	0	0	0	312	154	0	0	0	0	0	0	0	0
Lubricants .....	25	77	27	0	0	894	292	19	236	0	0	0	0	0	0
Wax .....	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil .....	0	0	0	0	426	0	261	153	238	0	0	0	0	0	0
Miscellaneous Products .....	0	8	201	0	0	172	50	0	0	0	0	0	0	31	0
<b>Total All Products</b> .....	7,266	230	2,995	5,167	2,045	78,985	18,197	19	2,863	0	928	0	1,080	2,634	18,785

Note: Total may not equal sum of components due to independent rounding.  
Sources: See Explanatory Notes on Data Collection and Estimation.

**Table 26. Movements of Petroleum Products by Pipeline Between PAD Districts, April 1982**  
(Thousands of Barrels)

Commodity	From I to	From II to				From III to				From IV to			
	II	I	III	IV	I	II	IV	V	II	III	V		
Natural Gasoline and Isopentane .....	0	0	292	0	0	0	1,049	0	0	292	0	0	
Unfractionated Stream .....	0	0	0	0	0	0	0	0	0	0	0	0	
Plant Condensate .....	0	0	0	0	0	0	1	0	0	0	0	0	
Liquefied Petroleum Gases .....	0	760	1,618	91	894	5,443	0	0	0	0	0	0	
Motor Gasoline Blending Components .....	0	0	0	0	0	853	0	0	0	0	0	0	
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0	0	
Finished Motor Gasoline .....	4,349	1,119	1,369	1,090	35,853	4,054	0	805	438	0	691	0	
Finished Leaded Motor Gasoline .....	2,341	468	793	602	16,378	1,803	426	379	302	0	465	0	
Finished Unleaded Motor Gasoline .....	2,008	651	576	481	19,475	2,244	0	379	136	0	226	0	
Gasohol .....	0	0	0	7	0	7	0	0	0	0	0	0	
Finished Aviation Gasoline .....	15	0	0	5	37	18	0	0	0	0	0	0	
Naphtha-Type Jet Fuel .....	0	0	79	0	251	0	175	20	0	83	0	0	
Kerosene-Type Jet Fuel .....	80	63	23	618	5,124	1,561	171	0	132	0	0	0	
Kerosene .....	6	10	0	0	345	48	0	0	0	0	0	0	
Distillate Fuel Oil .....	1,279	182	453	241	11,627	1,281	283	178	0	174	0	0	
Distillate Fuel Oil Less No. 4 .....	1,279	182	453	241	11,627	1,281	283	178	0	174	0	0	
No. 4 Fuel Oil .....	0	0	0	0	0	0	0	0	0	0	0	0	
Residual Fuel Oil .....	0	0	0	0	0	0	0	0	0	0	0	0	
Miscellaneous Products .....	0	201	0	0	0	33	0	0	0	0	0	0	
Total .....	5,729	2,335	3,834	2,045	54,131	14,341	0	1,434	928	0	1,080	0	

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

**Table 27. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, April 1982**  
(Thousands of Barrels)

Commodity	From I to		From II to			From III to			From V to		
	II	III	I	III	I	New Eng	Cent Atl	Low Atl	IV	V	III
<b>Crude Oil</b> .....	0	0	140	0	581	0	581	0	1,265	0	18,785
<b>Petroleum Products</b> .....	1,537	230	520	1,333	24,273	1,489	4,703	18,081	2,591	0	0
Liquefied Petroleum Gases .....	7	0	0	0	160	0	0	160	72	0	0
Unfinished Oils .....	7	0	0	0	1,074	0	1,047	27	48	0	0
Finished Motor Gasoline .....	988	0	234	0	10,421	215	143	10,063	576	0	0
Finished Aviation Gasoline .....	0	0	0	0	242	27	66	149	25	0	0
Naphtha-Type Jet Fuel .....	60	0	0	0	516	11	505	0	0	0	0
Kerosene-Type Jet Fuel .....	9	0	23	0	2,506	413	246	1,847	385	0	0
Kerosene .....	47	0	0	0	111	20	79	12	0	0	0
Distillate Fuel Oil .....	373	0	71	43	3,677	418	920	2,339	547	0	0
Residual Fuel Oil .....	0	0	148	864	3,899	380	1,223	2,296	229	0	0
Naphtha and Other Oils for Petro. Feed. Use .....	21	145	17	0	23	0	13	10	93	0	0
Special Naphthas .....	0	0	0	0	312	0	175	137	154	0	0
Lubricants .....	25	77	27	0	894	5	615	274	292	19	0
Wax .....	0	0	0	0	5	0	5	0	0	0	0
Asphalt and Road Oil .....	0	0	0	426	261	0	23	238	153	0	0
Miscellaneous Products .....	0	8	0	0	172	0	148	24	17	0	0
<b>Total</b> .....	1,537	230	660	1,333	24,854	1,489	5,284	18,081	3,856	19	18,785

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 28. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker and Barge Between PAD Districts, April 1982  
(Thousands of Barrels)

Commodity	P.A.D. District I			P.A.D. District II			P.A.D. District III			P.A.D. District IV			P.A.D. District V		
	Receipts into PADD I	Shipments from PADD I	Net Receipts PADD I	Receipts into PADD II	Shipments from PADD II	Net Receipts PADD II	Receipts into PADD III	Shipments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Shipments from PADD IV	Net Receipts PADD IV	Receipts into PADD V	Shipments from PADD V	Net Receipts PADD V
<b>Crude Oil</b> .....	3,313	0	3,313	1,255	140	1,125	18,785	1,846	16,939	0	0	0	0	21,377	-21,377
<b>Petroleum Products</b> .....	81,301	7,496	73,805	25,126	10,067	15,059	5,397	98,218	-92,821	2,064	2,008	56	3,943	42	3,901
Natural Gasoline .....	0	0	0	1,341	292	1,049	292	1,049	-757	0	292	-292	0	0	0
Unfractionated Stream .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant Condensate .....	0	0	0	1	0	1	0	1	-1	0	0	0	0	0	0
Liquefied Petroleum Gases .....	1,814	7	1,807	5,522	2,469	3,053	1,618	6,569	-4,951	91	0	91	0	0	0
Unfinished Oils .....	1,074	7	1,067	55	0	55	0	1,122	-1,122	0	0	0	0	0	0
Motor Gasoline Blending Components .....	0	0	0	853	0	853	0	853	-853	0	0	0	0	0	0
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline .....	47,627	5,337	42,290	10,405	3,812	6,593	1,369	52,128	-50,759	1,090	1,129	-39	1,915	0	1,915
Finished Leaded Motor Gasoline .....	21,960	2,947	19,013	5,405	1,971	3,434	793	23,966	-23,173	602	767	-165	891	0	891
Finished Unleaded Motor Gasoline .....	25,667	2,390	23,277	4,993	1,834	3,159	576	28,155	-27,579	481	362	119	1,024	0	1,024
Gasohol .....	0	0	0	7	7	0	0	7	-7	0	0	0	0	0	0
Finished Aviation Gasoline .....	279	15	264	58	5	53	0	322	-322	5	5	5	0	0	0
Naphtha-Type Jet Fuel .....	767	60	707	80	79	1	79	942	-863	0	103	-103	258	0	258
Kerosene-Type Jet Fuel .....	7,716	89	7,627	2,035	727	1,308	23	9,747	-9,724	618	132	486	303	0	303
Kerosene .....	466	53	413	101	10	91	0	504	-504	0	0	0	0	0	0
Distillate Fuel Oil .....	15,557	1,652	13,905	3,658	990	2,668	496	17,415	-16,919	241	352	-111	457	0	457
Distillate Fuel Oil Less No. 4 .....	15,452	1,652	13,800	3,658	947	2,711	453	17,310	-16,857	241	352	-111	457	0	457
No. 4 Fuel Oil .....	105	0	105	0	43	-43	43	105	-62	0	0	0	0	0	0
Residual Fuel Oil .....	4,058	0	4,058	229	1,012	-783	864	4,634	-3,770	0	0	0	506	11	495
Naphtha and Other Oils for Petro. Feedstock Use .....	40	166	-126	114	17	97	145	146	-1	0	0	0	30	0	30
Special Naphthas .....	312	0	312	154	0	154	0	466	-466	0	0	0	0	0	0
Lubricants .....	921	102	819	317	27	290	77	1,441	-1,364	19	0	19	236	0	236
Wax .....	5	0	5	0	0	0	0	5	-5	0	0	0	0	0	0
Asphalt and Road Oil .....	261	0	261	153	426	-273	426	652	-226	0	0	0	238	0	238
Miscellaneous Products .....	404	8	396	50	201	-151	8	222	-214	0	0	0	0	31	-31
<b>Total All Products</b> .....	84,614	7,496	77,118	26,391	10,207	16,184	24,182	100,064	-75,882	2,064	2,008	56	3,943	21,419	-17,476

Note: Total may not equal sum of components due to independent rounding.  
Sources: See Explanatory Notes on Data Collection and Estimation.

Table 29. Production of No.4 Fuel Oil and Residual Fuel Oil By Sulfur Content, April 1982  
(Thousands of Barrels)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV		United States			
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total				
<b>No. 4 Fuel Oil</b> .....	0	10	10	0	9	0	0	0	9	10	387	-111	58	187	531	28	61	639
0.00 to 0.30% Sulfur .....	0	2	2	0	0	0	0	0	0	0	310	47	0	0	357	0	0	359
0.31 to 0.50% Sulfur .....	0	0	0	0	2	0	0	0	2	4	0	0	0	0	4	28	0	34
0.51 to 1.00% Sulfur .....	0	0	0	0	7	0	0	0	7	5	77	0	2	187	271	0	26	304
1.01 to 2.00% Sulfur .....	0	8	8	0	0	0	0	0	0	1	0	0	0	0	1	0	4	13
Greater Than 2.00% Sulfur .....	0	0	0	0	0	0	0	0	0	0	0	-158	56	0	-102	0	31	-71
<b>Residual Fuel Oil</b> .....	4,544	129	4,673	95	2,242	267	709	3,313	777	6,973	6,832	395	104	15,081	340	11,455	34,862	
0.00 to 0.30% Sulfur .....	509	25	534	0	0	0	0	0	79	381	27	101	44	632	28	216	1,410	
0.31 to 0.50% Sulfur .....	1,598	51	1,649	0	37	0	111	148	98	149	30	101	0	378	116	1,239	3,530	
0.51 to 1.00% Sulfur .....	919	0	919	95	1,095	0	386	1,576	481	1,572	961	114	5	3,133	63	1,389	7,080	
1.01 to 2.00% Sulfur .....	86	53	139	0	703	102	114	919	114	555	772	18	55	1,514	28	-8,134	10,734	
Greater Than 2.00% Sulfur .....	1,432	0	1,432	0	407	165	98	670	5	4,316	5,042	61	0	9,424	105	477	12,108	

Note: Total may not equal sum of components due to independent rounding.  
Source: See Explanatory Notes on Data Collection and Estimation.

Table 30. Stocks of No.4 Fuel Oil and Residual Fuel Oil By Sulfur Content, April 1982  
(Thousands of Barrels)

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States			
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico		Total		
<b>No. 4 Fuel Oil -- 0.00 to 0.30% Sulfur</b>																	
Refinery .....	0	6	6	0	0	0	0	0	0	0	65	65	7	0	137	0	143
Bulk Terminal .....	494	0	494	0	0	0	0	0	0	0	6	0	1	0	7	0	501
Total .....	494	6	500	0	0	0	0	0	0	0	71	65	8	0	144	0	644
<b>No.4 Fuel Oil -- 0.31 to 0.50% Sulfur</b>																	
Refinery .....	0	0	0	0	5	0	0	5	12	0	1	0	0	0	13	8	44
Bulk Terminal .....	68	0	68	0	0	0	0	0	0	0	0	0	0	0	0	0	68
Total .....	68	0	68	0	5	0	0	5	12	0	1	0	0	0	13	8	112
<b>No. 4 Fuel Oil -- 0.51 to 1.00% Sulfur</b>																	
Refinery .....	0	0	0	0	14	0	0	14	32	235	0	5	79	351	0	20	385
Bulk Terminal .....	198	0	198	0	8	1	0	9	0	0	0	0	0	0	0	0	207
Total .....	198	0	198	0	22	1	0	23	32	235	0	5	79	351	0	20	592
<b>No. 4 Fuel Oil -- 1.01 to 2.00% Sulfur</b>																	
Refinery .....	0	4	4	0	0	0	0	0	19	0	35	0	0	0	54	2	65
Bulk Terminal .....	381	0	381	0	0	0	0	0	0	0	0	0	0	0	0	0	398
Total .....	381	4	385	0	0	0	0	0	19	0	35	0	0	0	54	2	463
<b>No.4 Fuel Oil -- Greater Than 2.00% Sulfur</b>																	
Refinery .....	0	0	0	0	0	0	0	0	0	0	59	59	0	0	118	0	121
Bulk Terminal .....	50	0	50	20	65	0	0	85	0	0	0	0	0	0	0	0	135
Total .....	50	0	50	20	65	0	0	85	0	0	59	59	0	0	118	0	256
<b>Residual Fuel Oil -- 0.00 to 0.30% Sulfur</b>																	
Refinery .....	409	33	442	0	0	0	0	0	115	212	21	25	7	380	136	544	1,502
Bulk Terminal .....	3,195	0	3,195	0	4	0	0	4	0	10	1,348	2	0	1,360	0	0	4,559
Total .....	3,604	33	3,637	0	4	0	0	4	115	222	1,369	27	7	1,740	136	544	6,061
<b>Residual Fuel Oil -- 0.31 to 0.50% Sulfur</b>																	
Refinery .....	953	28	981	0	111	3	3	117	57	308	11	107	0	483	37	1,444	3,062
Bulk Terminal .....	1,387	0	1,387	0	75	0	0	75	0	49	0	0	0	49	0	44	1,555
Total .....	2,340	28	2,368	0	186	3	3	192	57	357	11	107	0	532	37	1,488	4,617
<b>Residual Fuel Oil -- 0.51 to 1.00% Sulfur</b>																	
Refinery .....	675	0	675	85	1,139	0	200	1,424	104	1,223	951	109	5	2,392	16	610	5,117
Bulk Terminal .....	4,953	21	4,974	121	1,035	19	93	1,268	7	314	227	0	0	548	0	289	7,079
Total .....	5,628	21	5,649	206	2,174	19	293	2,692	111	1,537	1,178	109	5	2,940	16	899	12,196
<b>Residual Fuel Oil -- 1.01 to 2.00% Sulfur</b>																	
Refinery .....	474	139	613	0	526	174	140	840	33	622	536	10	42	1,243	170	4,569	7,435
Bulk Terminal .....	2,755	14	2,769	55	510	102	458	1,125	0	136	117	0	0	253	0	1,508	5,655
Total .....	3,229	153	3,382	55	1,036	276	598	1,965	33	758	653	10	42	1,496	170	6,077	13,090
<b>Residual Fuel Oil -- Greater than 2.00% Sulfur</b>																	
Refinery .....	573	0	573	0	523	223	164	910	7	2,498	2,055	59	0	4,619	164	363	6,629
Bulk Terminal .....	7,895	4	7,899	0	254	51	129	434	0	485	1,646	36	0	2,167	0	514	11,014
Total .....	8,468	4	8,472	0	777	274	293	1,344	7	2,983	3,701	95	0	6,786	164	877	17,643
<b>Residual Fuel Oil -- Sulfur Content Not Specified</b>																	
Pipeline .....	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	16	17
Total .....	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	16	17

Note: Total may not equal sum of components due to independent rounding.  
Sources: See Explanatory Notes on Data Collection and Estimation.

Table 31. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, April 1982  
(Thousands of Barrels)

Country	Residual Fuel Oil						Total
	0.00 to 0.30%	0.31 to 0.50%	0.51 to 1.00%	1.01 to 2.00%	Greater Than 2.00%	Not Specified	
<b>Arab OPEC</b>							
Algeria .....	1,909	138	0	0	0	0	2,047
Iraq .....	0	0	0	0	0	0	0
Kuwait .....	0	0	0	0	0	0	0
Qatar .....	0	0	0	0	0	0	0
Saudi Arabia .....	0	0	0	0	0	0	0
United Arab Emirates .....	0	0	0	0	0	0	0
Subtotal Arab OPEC .....	1,909	138	0	0	0	0	2,047
<b>Other OPEC</b>							
Ecuador .....	0	0	0	311	0	0	311
Gabon .....	0	0	0	0	0	0	0
Indonesia .....	0	84	0	0	0	0	84
Iran .....	0	0	0	0	0	0	0
Nigeria .....	0	0	0	0	0	0	0
Venezuela .....	123	0	0	248	6,118	0	6,488
Subtotal Other OPEC .....	123	84	0	558	6,118	0	6,882
<b>Other</b>							
Angola .....	0	0	0	0	0	0	0
Australia .....	253	0	0	0	0	0	253
Bahamas .....	717	0	100	0	405	0	1,223
Bolivia .....	0	0	0	0	0	0	0
Brazil .....	366	0	0	0	0	0	366
Brunei .....	0	21	0	4	0	0	25
Canada .....	0	0	225	103	4	0	332
Mexico .....	0	0	0	0	343	0	343
Netherlands .....	843	0	0	0	(s)	0	(s)
Netherlands Antilles .....	0	0	0	129	3,920	0	4,892
Norway .....	0	0	0	0	0	0	0
Oman .....	0	0	0	0	0	0	0
People's Republic of China .....	0	0	0	0	0	0	0
Peru .....	0	43	241	0	0	0	284
Puerto Rico .....	0	0	0	0	0	0	0
Romania .....	0	0	0	0	0	0	0
Spain .....	0	0	0	0	0	0	0
Syria .....	0	0	0	0	0	0	0
Trinidad .....	0	0	465	0	326	0	792
Tunisia .....	0	0	0	0	0	0	0
United Kingdom .....	0	0	0	0	0	0	0
Virgin Islands .....	281	179	1,641	711	571	0	3,382
Yugoslavia .....	0	0	0	0	0	0	0
Zaire .....	0	0	0	0	0	0	0
<b>Other Western</b>							
Hemisphere .....	358	0	0	0	353	0	711
Other Eastern Hemisphere .....	464	465	399	0	4	0	1,332
Subtotal Other .....	3,282	707	3,071	947	5,926	0	13,934
<b>Total Imports .....</b>	<b>5,314</b>	<b>929</b>	<b>3,071</b>	<b>1,505</b>	<b>12,044</b>	<b>0</b>	<b>22,863</b>

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 32. Imports of Residual Fuel Oil by Sulfur Content by State at Entry, April 1982  
(Thousands of Barrels)

State	Residual Fuel Oil						Total
	0.00 to 0.30%	0.31 to 0.50%	0.51 to 1.00%	1.01 to 2.00%	Greater Than 2.00%	Not Specified	
<b>PAD District I</b> .....	<b>4,840</b>	<b>691</b>	<b>2,798</b>	<b>1,489</b>	<b>9,080</b>	<b>0</b>	<b>18,898</b>
Connecticut .....	0	0	329	0	0	0	329
Florida .....	0	0	755	197	1,538	0	2,490
Georgia .....	0	0	0	0	126	0	126
Maine .....	0	0	192	35	1,010	0	1,237
Maryland .....	0	0	160	100	311	0	571
Massachusetts .....	0	0	136	0	1,286	0	1,422
New Jersey .....	1,016	76	199	124	1,392	0	2,807
New York .....	3,702	512	618	741	1,147	0	6,720
Pennsylvania .....	0	103	408	0	531	0	1,043
Rhode Island .....	0	0	0	0	50	0	50
South Carolina .....	73	0	0	79	282	0	433
Virginia .....	48	0	0	213	1,408	0	1,669
<b>PAD District II</b> .....	<b>0</b>	<b>0</b>	<b>31</b>	<b>13</b>	<b>207</b>	<b>0</b>	<b>250</b>
Michigan .....	0	0	31	0	0	0	31
North Dakota .....	0	0	0	13	207	0	219
<b>PAD District III</b> .....	<b>10</b>	<b>0</b>	<b>241</b>	<b>0</b>	<b>2,757</b>	<b>0</b>	<b>3,008</b>
Louisiana .....	1	0	241	0	2,301	0	2,543
Texas .....	9	0	0	0	456	0	465
<b>PAD District IV</b> .....	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>PAD District V</b> .....	<b>464</b>	<b>238</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>707</b>
California .....	464	0	0	0	0	0	464
Hawaii .....	0	238	0	4	0	0	242
Washington .....	0	0	1	0	0	0	1
<b>All PAD Districts</b> .....	<b>5,314</b>	<b>929</b>	<b>3,071</b>	<b>1,505</b>	<b>12,044</b>	<b>0</b>	<b>22,863</b>

Note: Total may not equal sum of components due to independent rounding.  
Sources: See Explanatory Notes on Data Collection and Estimation



## Glossary



## Glossary

## Definitions of Petroleum Products and Other Terms

**Alcohol.** The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group,  $\text{CH}(\text{CH})_n\text{-OH}$ . "Alcohol" includes ethanol and methanol.

**Asphalt.** A dark-brown-to-black cement-like material, containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor is 5.5 42-gallon barrels per short ton.

**ASTM.** The acronym for the American Society for Testing and Materials.

**Aviation Gasoline Blending Components.** Finished components in the gasoline range which will be used for blending or compounding into finished aviation gasoline.

**Aviation Gasoline (Finished).** All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D 910 and Military Specification MIL-G-5572.

**Barrel.** A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt, and wax to barrels are given in the definitions for these products.

**Butane.** A normally gaseous paraffinic hydrocarbon,  $\text{C}_4\text{H}_{10}$ . It is extracted from natural gas or refinery gas streams. Butane is covered by ASTM Specification D1835 and Gas Processors Association Specification for commercial butane.

- Normal Butane—A saturated straight-chain hydrocarbon of butane. It is a colorless paraffinic gas that boils at a temperature of  $31.1^\circ\text{F}$ . This classification includes mixtures of gases that contain 80 percent or more normal butane.
- Other Butanes—All butanes not included as normal butane or isobutane.

**Butane-Propane Mixtures.** Mixtures consisting exclusively of butane and propane that conform to ASTM Specification D1835 and Gas Processors Specification for commercial butane-propane. They are extracted from natural gas and refinery gas streams.

**Butylene.** An olefinic hydrocarbon,  $\text{C}_4\text{H}_8$ , recovered from refinery processes. It is reported in the "Butane" category.

**Coal.** A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D 388.

**Crude Oil (including Lease Condensate).** A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Lease condensate is included. Drips are also included, but topped crude (residual) oil and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

- Domestic—Crude oil produced in the United States or from its outer continental shelf as defined in 43 U.S.C. 1331. Hydrocarbons such as shale oil and tar sand oil are included.
- Foreign—Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

**Distillate Fuel Oil.** A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1 and No. 2 heating oils, No. 1 and No. 2 diesel fuel oils, and No. 4 fuel oil.

- **No. 1 Fuel Oil**—A light distillate fuel oil intended for vaporizing pot-type burners. ASTM Specification D 396 specifies for this grade maximum distillation temperatures of 400° F. at the 10-percent point and 550° F. at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100° F.

- **No. 2 Fuel Oil**—A distillate fuel oil for domestic heating for use in atomizing-type burners or for moderate capacity commercial-industrial burner units. ASTM Specification D 396 specifies for this grade temperatures at the 90-percent point between 540° and 640° F., and kinematic viscosities between 2.0 and 3.6 centistokes at 100° F.

- **No. 1 and No. 2 Diesel Fuel Oils**—Distillate fuel oils used in compression-ignition engines, as given by ASTM Specification D 975:

1. **No. 1-D**—A volatile distillate fuel oil in the 400° to 550° F. boiling range for engines in service requiring frequent speed and load changes. Type C-B diesel fuel, which is used for city buses and similar operations, is included.

2. **No. 2-D**—A distillate fuel oil of lower volatility in the 540° to 640° F. boiling range for engines in industrial and heavy mobile service. Type R-R diesel fuel for railroad compression-ignition engines and Type T-T for diesel-engine trucks are included.

- **No. 4 Fuel Oil**—A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D 396 or Federal Specification VV-F-815C; its kinematic viscosity is between 5.8 and 26.4 centistokes at 100° F. Also included is No. 4-D, a fuel oil for low- and medium-speed diesel engines that conforms to ASTM Specification D 975.

**Eastern Hemisphere.** That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa, and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

**Electric Energy (Purchased).** Electricity purchased for refinery operations that is not produced within the refinery complex.

**Ethane.** A normally gaseous paraffinic hydrocarbon,  $C_2H_6$ , extracted from natural gas and refinery gas streams. "Ethane" includes any product containing 90 percent liquid volume or more ethane.

**Ethane-Propane Mixtures.** Mixtures of ethane and propane in which neither component is 90 percent or more of the liquid volume. It is extracted for natural gas and refinery gas streams.

**Ethylene.** An olefinic hydrocarbon,  $C_2H_4$ , recovered from refinery and petrochemical processes. It is reported in the "Ethane" category.

**Field Production.** Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

**Gas Well Gas.** Natural gas produced from gas wells. Such gas may be either associated gas or non-associated gas.

- **Associated Gas**—Free natural gas in immediate contact, but not in solution, with crude oil in the reservoir.

- **Non-Associated Gas**—Free natural gas not in contact with, nor dissolved in, crude oil in the reservoir.

**Imported Crude Oil Burned as Fuel.** The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. "Imported crude oil burned as fuel" includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and oil shale.

**Isobutane.** A saturated branch-chain isomer of butane. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. This classification includes mixtures of gases that contain 80 percent liquid volume or more isobutane. It is extracted from natural gas and refinery gas streams.

**Isopentane.** A saturated branch-chain hydrocarbon, C<sub>5</sub>H<sub>12</sub>, obtained by fractionation of natural gasoline or isomerization of normal pentane.

**Kerosene.** A petroleum distillate that boils at a temperature between 300° and 550° F., that has a flash point higher than 100° F. by ASTM Method D 56, that has a gravity range from 40° to 46° API, and that has a burning point in the range of 150° to 175° F. It is a clean-burning product suitable for use as an illuminant when burned in wick lamps. Includes grades of kerosene called range oil having properties similar to No. 1 fuel oil, but with a gravity of about 43° API and having a maximum end-point of 625° F. Kerosene is used in space heaters, cook stoves, and water heaters.

**Kerosene-Type Jet Fuel.** A quality kerosene product with an average gravity of 40.7° API, a 10-percent distillation temperature of 400° F., and an end-point of 572° F. It is covered by ASTM Specification D 1655 and Military Specification MIL-T-5624L (Grade JP-5 and JP-8). It is used primarily for commercial turbojet and turboprop aircraft engines.

**Lease Condensate.** A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

**Lease Separator.** A surface facility used for separating casinghead gas from produced crude oil and water and separating gas from that portion of associated gas and non-associated gas that liquefies at the temperature and pressure conditions of the separator.

**Liquefied Petroleum Gases (LPG).** Propane, propylene, butanes, butylene, ethane-propane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids. Formerly called "Liquefied Gases."

**Liquefied Refinery Gases (LRG).** Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration they are retained in the liquid state. The reported categories are ethane and/or ethylene, propane and/or propylene, butane and/or butylene, butane-propane mixtures, and isobutane. Excludes still gases used for chemical or rubber manufacture which are reported as petrochemical feedstocks and also excludes liquefied gases ready for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstocks, other uses, or both.

**Lubricants.** A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories reported are:

- **Bright Stock**—A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.
- **Neutral**—A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100° F. It is prepared by a treatment such as hydrofining, acid treatment, or solvent extraction.
- **Other**—A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

**Miscellaneous Products.** Includes all finished products not classified elsewhere. "Miscellaneous products" include petrolatum, absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and other finished products.

**Motor Gasoline Blending Components.** Finished components in the gasoline range that will be used for blending or compounding into finished motor gasoline. Pool gasoline is included in this category.

**Motor Gasoline (Finished).** A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition

engines. Specifications for motor gasoline, as given in ASTM Specification D 439 or Federal Specification VV-G-1690B, include a boiling range of 122° to 158° F. at the 10-percent point to 365° to 374° F. at the 90-percent point and a Reid vapor pressure range from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

- **Finished Leaded Gasoline**—Contains more than 0.05 grams of lead per gallon or more than 0.005 grams of phosphorus per gallon. The actual lead content of any given gallon, however, may vary as a function of the size of the producer and company according to specific Environmental Protection Agency waiver provisions. Premium and regular grades are included, depending on the octane rating.
- **Finished Unleaded Gasoline**—Contains up to 0.05 grams of lead per gallon and 0.005 grams of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating.
- **Gasohol**—A blend of alcohol and finished motor gasoline that is no more than 90 percent of finished motor gasoline (leaded or unleaded as described above) and no less than 10 percent or more alcohol (ethanol or methanol).

**Motor Gasoline (Total).** Includes finished leaded motor gasoline, finished unleaded motor gasoline, motor gasoline blending components, and gasohol.

**Naphtha-Type Jet Fuel.** A fuel in the heavy naphtha boiling range with an average gravity of 52.8° API and 20 to 90 percent distillation temperatures of 290° to 470° F., meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. This category excludes ram-jet and petroleum rocket fuels, which are included in the "Miscellaneous Products" category.

**Natural Gas.** A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

**Natural Gas Field Facility.** A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, butane, natural gasoline, etc., and to control the quality of natural gas to be marketed.

**Natural Gas Plant Liquids.** Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials, and are classified as follows: Ethane, propane, ethane-propane mix, isobutane, butane, butane-propane mix, isopentane, natural gasoline, plant condensate, unfractionated stream, and other products from natural gas processing plants (i.e., products meeting the standards of finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

**Natural Gas Processing Plant.** A facility designed to recover natural gas liquids from a stream of natural gas that may or may not have been processed through lease separators or natural gas field facilities. The facility also controls the quality of natural gas to be marketed. Cycling plants are classified as gas processing plants.

**Natural Gasoline.** A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Producers Association.

**OPEC.** The acronym for the Organization of Petroleum Exporting Countries, oil-producing and-exporting countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices, and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

**Operable Distillation Capacity.** The maximum amount of input that can be processed by a crude oil distillation unit in a 24-hour period, making allowances for processing limitations due to types and

grades of inputs, limitations of downstream facilities, scheduled and unscheduled downtimes, and environmental constraints. Includes any shutdown capacity that could be placed in operation within 90 days.

**Other Hydrocarbons.** Materials received by a refinery and consumed as raw materials. Includes hydrogen, coal, tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

**Petrochemical Feedstocks.** Chemical feedstocks derived from petroleum, principally for the manufacture of synthetic rubber and a variety of plastics. The categories reported are "Naphtha-less than 400° F. end-point" and "Other oils over 400° F. end-point."

- Naphtha less than 400° F. end-point—A naphtha with an end point of less than 400° F. and that is reported as used as a petrochemical feedstock.
- Other oils over 400° F. end-point—Oils with an end point over 400° F. and that are reported as used as a petrochemical feedstock.

**Petroleum Coke.** A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 42-gallon barrels per short ton.

- Marketable Coke—Those grades of coke that are produced in delayed or fluid cokers and which may be recovered as relatively pure carbon. This "green" coke may be sold or further purified by calcining.
- Catalyst Coke—In many catalytic operations (i.e., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as fuel in the refinery process. This carbon or coke is not recoverable in a concentrated form.

**Petroleum Products.** Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, natural gasoline and isopentane, plant condensate, unfractionated stream, ethane, liquefied petroleum gases, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400° F. end-point, other oils-over 400° F. end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

**Petroleum Refinery.** An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas plant liquids, other hydrocarbons, and alcohol.

**Plant Condensate.** One of the natural gas plant liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

**Primary Stocks.** Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in transit from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. "Primary Stocks" excludes stocks of foreign origin that are held in bonded warehouse storage.

**Propane.** A normally gaseous hydrocarbon,  $C_3H_8$ , extracted from natural gas and refinery gas streams. It is used primarily as a fuel and as a petrochemical feedstock. Propane is covered by ASTM Specification D1835, Gas Processors Association for commercial and HD-5 propane, and ASTM Specification for special duty propane.

**Propylene.** An olefinic hydrocarbon,  $C_3H_6$ , recovered from refinery and petrochemical processes. It is reported in the "Propane" category.

**Residual Fuel Oil.** Topped crude of refinery operations. "Residual Fuel Oil" includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D 396 and Federal Specification VV-F-815C; Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2; Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

**Road Oil.** Any heavy petroleum oil, including residual asphaltic oils, used as a dust palliative and surface treatment of roads and highways. It is generally produced in six grades; from 0, the most liquid, to 5, the most viscous.

**Special Naphthas.** All finished products within the gasoline range that are used as paint thinners, cleaners, and solvents. These products are refined to a specified flash point and have a boiling range of 90° to 220° F. "Special naphthas" includes all commercial hexane and cleaning solvents conforming to ASTM Specifications D1836 and D 484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

**Steam (Purchased).** Steam that is purchased for use by a refinery that was not generated from within the refinery complex.

**Still Gas (Refinery Gas).** Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, butane, butylene, propane, propylene, etc. Still gas is reported for petrochemical feedstock use and refinery fuel use.

- **Petrochemical Feedstock Use**—Includes all refinery streams which are used by chemical or rubber manufacturing operations for further processing, less the amount of such streams returned to the source refinery. Finished petrochemical products are not included. For example, polyethylene, butadiene, etc. are considered petrochemical products; therefore, only their feedstock equivalents are included.

- **Fuel Use**—All other still gas.

**Strategic Petroleum Reserve (SPR).** Stocks (currently, only crude oil) maintained by the Federal Government for use during periods of major supply interruption.

**Unfinished Oils.** Includes all oils requiring further processing, except those requiring only mechanical blending.

**Unfractionated Stream.** Mixtures of unsegregated natural gas plant liquid components excluding those included in plant condensate. This product is extracted from natural gas.

**Wax.** A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is a light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades reported are microcrystalline, crystalline—fully refined, and crystalline—other. The conversion factor is 280 pounds per 42-gallon barrel.

- **Microcrystalline Wax**—Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics:

- Penetration at 77° F. (D-1321)—60 maximum.
  - Viscosity at 210° F. in Saybolt Universal Seconds (SUS) (D-88)—60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum.
  - Oil content (D-721)—5 percent minimum.

- **Crystalline-Fully Refined Wax**—A light-colored paraffin wax having the following characteristics:

- Viscosity at 210° F. (D-88)—59.9 SUS (10.18 centistokes) maximum.
  - Oil Content (D-721)—0.5 percent maximum.
  - Other +20 color, Saybolt minimum.

- **Crystalline-Other Wax**—A paraffin wax having the following characteristics:

- Viscosity at 210° F. (D-88)—59.9 SUS (10.18 centistokes) maximum.
  - Oil Content (D-721)—0.51 percent minimum to 15 percent maximum.

**Western Hemisphere.** That half of the earth that includes North and South America and the surrounding waters.

# Bureau of Mines Petroleum Refining Districts and PAD Districts

## PAD District

## Refining District

I

**East Coast**—District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

**Appalachian #1**—The State of West Virginia, those parts of the States of Pennsylvania and New York not included in the East Coast District.

**Appalachian #2**—The following counties of the State of Ohio: Erie, Huron, Crawford, Marion, Delaware, Franklin, Pickaway, Ross, Pike, Scioto, and all counties east thereof.

**Indiana—Illinois—Kentucky**—The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and that part of the State of Ohio not included in the Appalachian District.

II

**Minnesota—Wisconsin—North and South Dakota**—The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

**Oklahoma—Kansas—Missouri**—The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

**Texas Inland**—The State of Texas except the Texas Gulf Coast District.

**Texas Gulf Coast**—The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

III

**Louisiana Gulf Coast**—The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

**North Louisiana—Arkansas**—The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

**New Mexico**—The State of New Mexico.

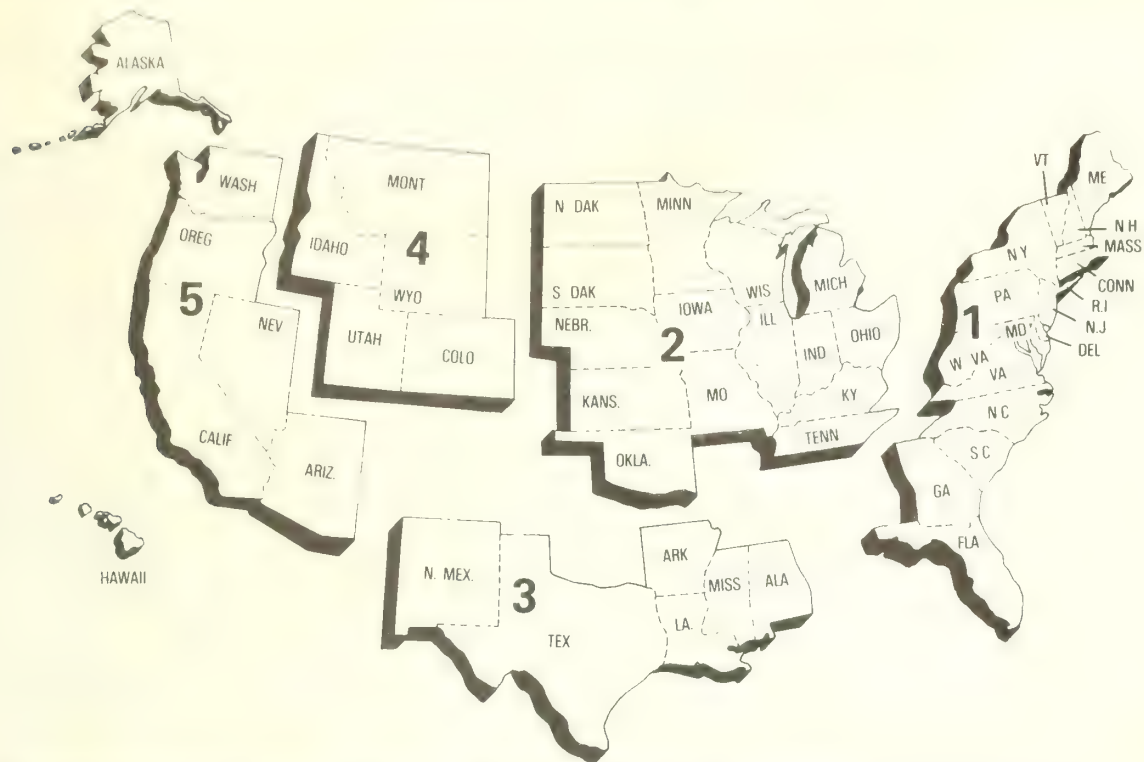
IV

**Rocky Mountain**—The States of Montana, Idaho, Wyoming, Utah, and Colorado.

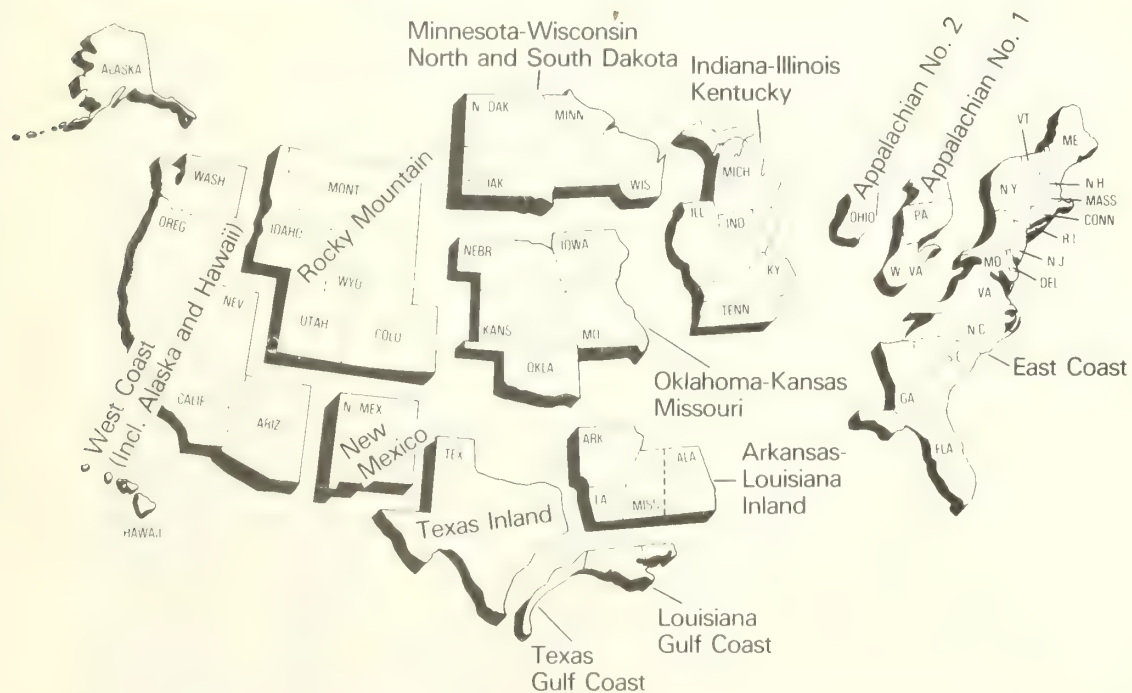
V

**West Coast**—The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

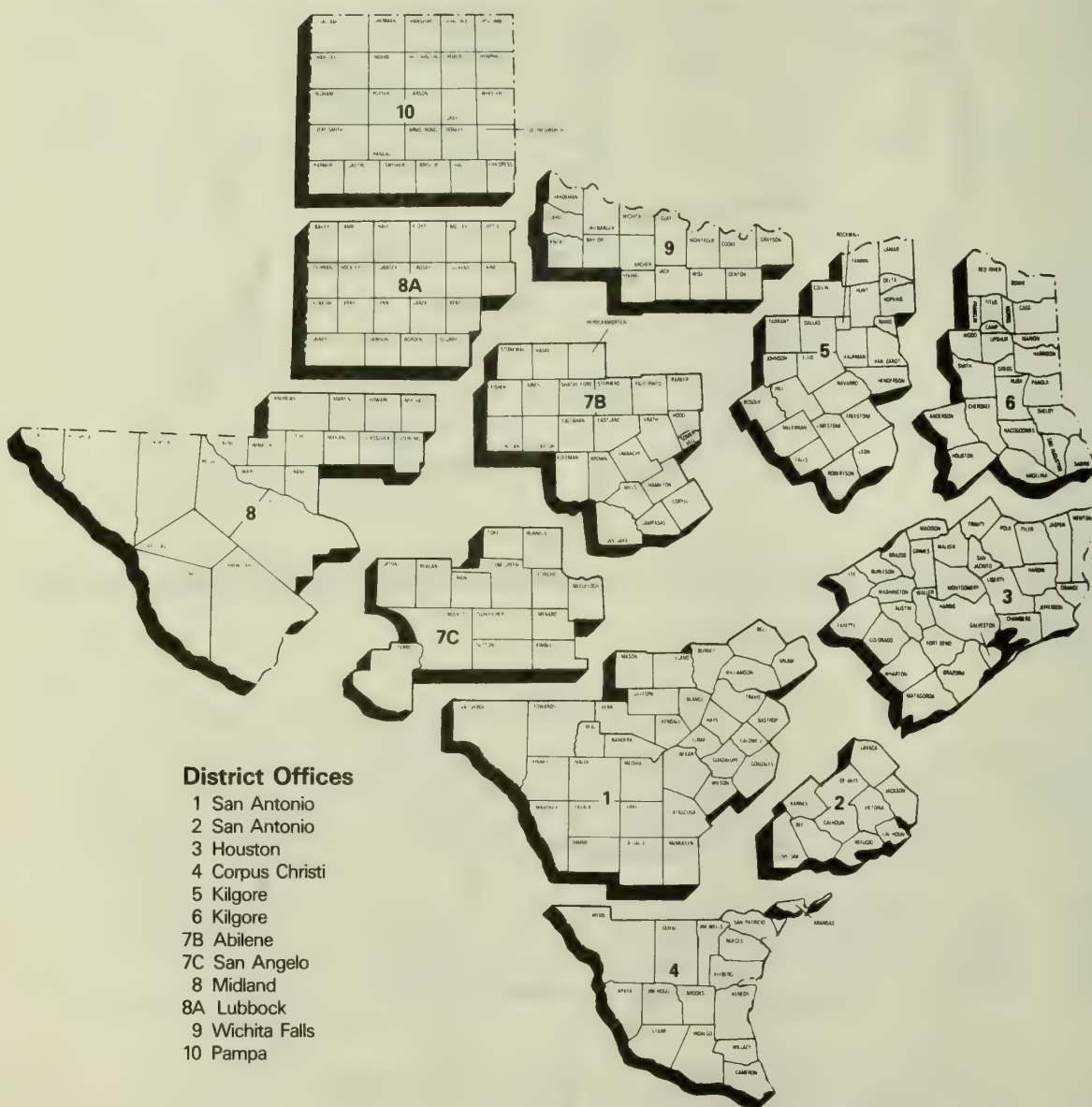
## Petroleum Administration for Defense (PAD) Districts



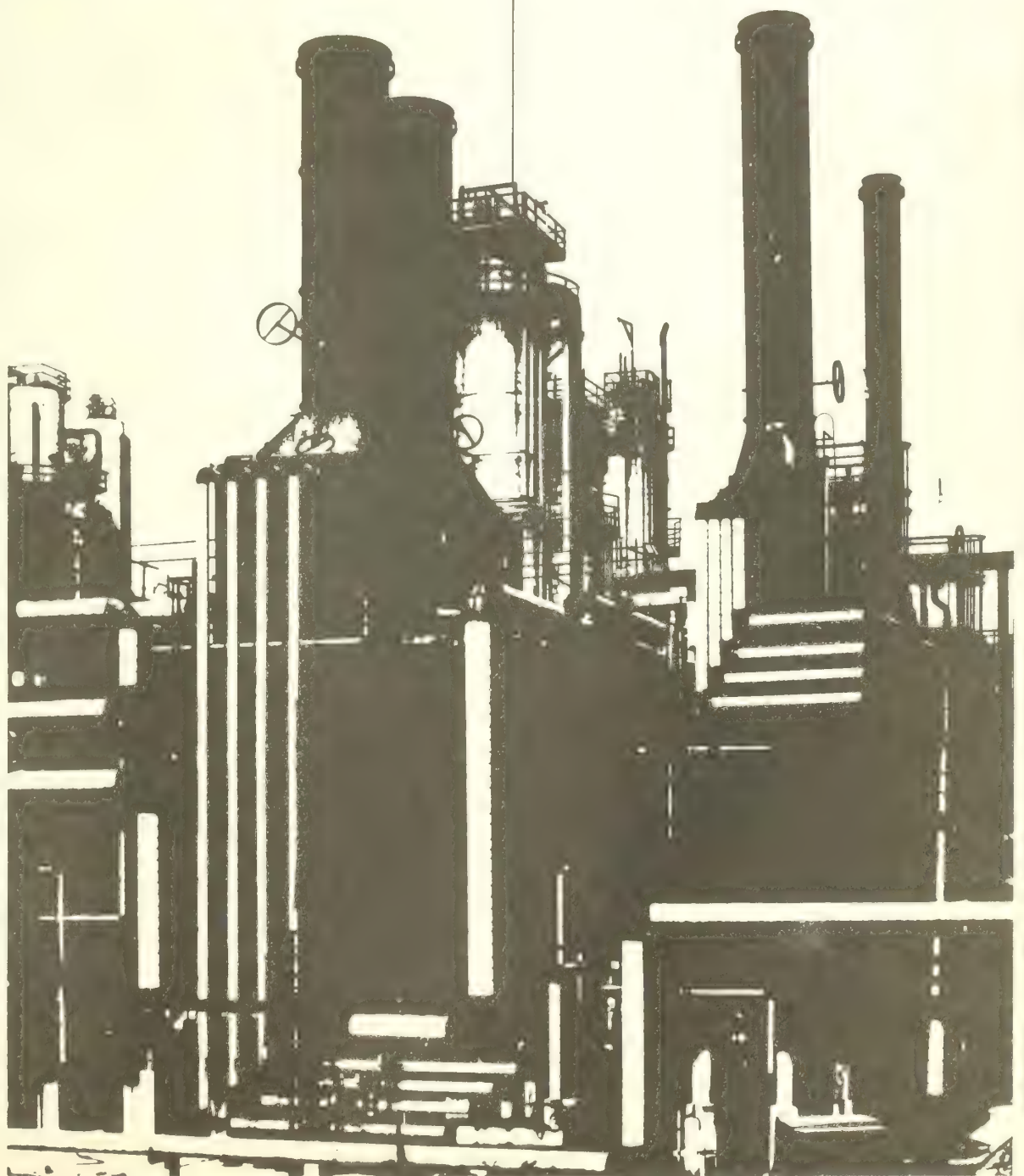
## Bureau of Mines Refining Districts



## District Map Oil and Gas Division Railroad Commission of Texas



## Explanatory Notes



## Explanatory Notes

### Note 1.1 EIA-64: Natural Gas Liquids Operations Report

#### Background

The EIA-64, "Natural Gas Liquids Operations Report" evolved from a survey designed and conducted by the United States Geological Survey beginning in 1911. This form collects data on the production and storage of natural gas plant liquids at natural gas processing plants and fractionators.

#### Description of Survey

##### Universe

The universe includes all operators of facilities designed to: (1) extract liquid hydrocarbons from natural gas streams (natural gas processing plants); (2) separate a combined products liquid hydrocarbon stream into its component products, i.e. propane, butane, natural gasoline, etc. (fractionators); or (3) store the liquid hydrocarbon output of plants and fractionators.

The mailing list is automated. It is maintained by matching periodically with the *LP Gas Almanac* listings (including supplements) and the *Oil and Gas Journal* Processing Plant Survey listings, and by making changes reported by the respondents.

##### Information Collected

The data are submitted monthly by facility and include all products that the company controls through possession, regardless of ownership. The main items of information collected by the EIA-64 are shown by the example of the form presented below.

##### Collection Methods

Completed reports are required to be postmarked 20 days following the last day of the report month. Follow-up telephone calls are made to nonrespondents in order to collect data before publication of the aggregated data.

##### Imputing Missing Data

Imputation is performed only for companies that submitted a report in the previous month. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. The value of shipments is adjusted to balance stock level, production, receipts, plant fuel use, and losses. In the event that the previous month's data were estimated, the respondent is contacted and requested to submit estimates, if necessary, to be followed by a resubmission of actual data.

##### Response Rates

The initial response rate averages 85 percent, with a final response averaging 98 percent as a result of telephone follow-up procedures.

##### Data Processing

Upon receipt, the reports are reviewed for identification section omissions, duplicate submissions, and identification information changes. The data are then entered and edited. The edit program includes checks for invalid data entry codes, range checks for current-month to previous-month changes (absolute and relative), arithmetic calculation errors, line balancing errors, etc. Telephone calls are made to respondents to resolve questions.

### Note 1.2 EIA-87, 88, 89 and 90: Joint Petroleum Reporting System

#### Background

The Joint Petroleum Reporting System (JPRS) comprises four surveys: the "Refinery Report" (EIA-87); the "Bulk Terminal Stocks Report" (EIA-88); the "Pipeline Products Report" (EIA-89); and the

[illegible]

"Crude Oil Stocks Report" (EIA-90). This group of forms collects data on petroleum refinery operations and on storage of crude oil and petroleum products. The origins of JPRS lie in the voluntary petroleum reporting systems instituted by the Bureau of Mines (BOM) soon after it was established as a part of the Department of the Interior in May 1910.

## Description of Survey

### Universe

The respondent universe of each JPRS survey is defined as follows:

**EIA-87:** All petroleum refineries and plants producing finished motor gasoline through the mechanical blending of liquids which are operated or controlled in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Hawaiian Foreign Trade Zone, and Guam.

**EIA-88:** All bulk terminal facilities in the 50 States and the District of Columbia, Puerto Rico, and the Virgin Islands that (a) have total bulk storage capacity of 50,000 barrels or more and/or (b) receive petroleum products by tanker, barge, or pipeline regardless of ownership of the material.

**EIA-89:** All products pipeline companies that carry petroleum products (including interstate, intrastate and intracompany pipelines) in the 50 States and the District of Columbia.

**EIA-90:** Crude oil pipeline companies (gathering and trunk pipeline companies), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water (in excess of 1,000 barrels), regardless of ownership in the 50 States and the District of Columbia.

The list of respondents is kept current by checking for new respondents in the *Oil and Gas Journal* weekly magazine; newspaper articles; the Office of Resource Applications publication "Trends in Refinery Capacity & Utilization;" the Office of Refinery Operations (ERA) list of U.S. Refiners; and the annual survey EIA-177 "Capacity of Petroleum Refineries."

### Information Collected

The main items of information collected by EIA-87, are shown by the example presented below. The EIA-88 and EIA-89 collect data on petroleum product stocks. The EIA-90 collects data on crude oil stocks and crude oil used directly as fuel.

### Collection Methods

The data for the JPRS surveys are collected on a monthly basis. Completed forms are required to be postmarked by the 20th day following the report month. Telephone follow-up calls are made to nonrespondents in order to collect data before publication deadline. An automated mailing list is maintained and is used to monitor receipt of the forms.

### Imputing Missing Data

Imputation is performed only for companies that submitted a report in the previous month. For these companies, the previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. The value of shipments is adjusted to balance stock level, production receipts, and losses. In the event that previous month's data were estimated, the respondent is contacted and requested to submit estimates if necessary, to be followed by a resubmission of actual data.

### Response Rates

As of the filing deadline, the response rate of the JPRS respondents is over 90 percent. All companies that have not responded are contacted by telephone. Although data are taken by telephone to expedite processing, a certified submission is still required. Thirty calendar days after the report month, data for companies that still fail to file the form are estimated based on prior month's data. Names of companies that fail to file for two consecutive months are forwarded to DOE for further noncompliance action. Final response rate is 100 percent.

Report Type: **B 0 1** EIA Company Identification No.: Report Period:   
Yr Mo**SECTION 6. REFINERY STOCKS, RECEIPTS, INPUTS, PRODUCTION, SHIPMENTS AND REFINERY FUEL USE AND LOSSES**  
(Thousands of Barrels of 42 Gallons)

ITEM DESCRIPTION	PRODUCT CODE	STOCKS Beginning of Month A	STOCKS End of Month B	RECEIPTS DURING MONTH C	PRODUCTION DURING MONTH D	SHIPMENTS DURING MONTH E	REFINERY FUEL USE AND LOSSES DURING MONTH F	OTHER LOSSES DURING MONTH G
Crude oil (incl. lease condensate) Total (sum of codes 010 and 020)	050				X			
Domestic (incl. Alaskan)	010	X		X	X	X	X	X
Foreign	020	X		X	X	X	X	X
Alaskan	011	X		X	X	X	X	X
Products of natural gas processing plants								
Ethane	110				X			
Propane	231				X			
Ethane-propane mixtures	241				X			
Isobutane	233				X			
Normal butane	235				X			
Other butanes	236				X			
Butane-propane mixtures	234				X			
Natural gasoline and isopentane	220				X			
Plant condensate	210				X			
Unfractionated stream	227				X			
Other hydrocarbons and hydrogen	090				X			
Alcohol	091				X			
Unfinished oils	812							
Gasoline								
Finished leaded motor	132							
Finished unleaded motor	133							
Blending components motor	134							
Gasohol	135							
Finished aviation	111							
Blending components aviation	112							
Special naphthas (solvents)	051							
Jet fuel								
Naphtha-type	211							
Kerosene-type	213							
Kerosene (incl. range oil)	311							
Distillate fuel oil Less No. 4	412							
No. 4 fuel oil	414							
Residual fuel oil	511							
Lubricating oils								
Bright stock	853							
Neutral	855							
Other	859							
Asphalt	900							
Wax								
Microcrystalline	061							
Crystalline fully refined	071							
Crystalline other	081							
Petroleum coke								
Marketable	021							
Catalyst	022	X						X
Road oil	031	X						X
Still gas		X						X
Petrochemical feedstock use	042	X						X
Other use	044	X						X
Ethane and/or ethylene								
Petrochemical feedstock use	612							
Other use	652							
Propane and/or propylene								
Petrochemical feedstock use	613							
Other use	653							
Butane and/or butylene								
Petrochemical feedstock use	614							
Other use	654							
Butane-propane mixtures								
Petrochemical feedstock use	616							
Other use	656							
Isobutane petrochemical feedstock use	615							
Naphtha - less than 400° end-point								
Petrochemical feedstock use	822							
Other oils - over 400° end-point								
Petrochemical feedstock use	824							
Other finished products								
Non-fuel use	097							
Fuel Use	098							
Overage (Inputs) or shortage (production)	911	X	X			X	X	X
TOTAL	999	X	X			X	X	X

## **Note 1.3 EIA-161, 162, 163, 164 and 165: Weekly Petroleum Reporting System**

### **Background**

The Weekly Petroleum Reporting System (WPRS) comprises five surveys: the "Refinery Report" (EIA-161); the "Bulk Terminal Stocks Report" (EIA-162); the "Pipeline Product Stock Report" (EIA-163); the "Crude Oil Stocks Report" (EIA-164); and the "Imports Report" (EIA-165).

The EIA weekly reporting system was designed to collect data similar to those collected under the monthly Joint Petroleum Reporting System (JPRS) (See Note 1.2). In the WPRS, selected petroleum companies report weekly data to EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On the Forms EIA-161 through EIA-164, companies report data on a custody basis. On the Form EIA-165, the importer of record reports each shipment entering the United States. Current weekly data and the most recent monthly data from the JPRS are used to estimate the published weekly totals.

### **Description of Survey**

#### **Universe**

The sample of companies that report weekly in the WPRS was selected from the universe of companies that report monthly in either the JPRS system or the ERA-60 system (for imports). All sampled companies report data only for facilities in the 50 States and the District of Columbia.

The sampling frame for each weekly survey is defined as follows:

**EIA-161:** Uses the EIA-87 universe, which includes all petroleum refineries in the United States and its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and bulk terminals that blend motor gasoline.

**EIA-162:** Uses the EIA-88 universe, which includes all bulk terminal facilities in the United States and its territories that have total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline.

**EIA-163:** Based on the EIA-89 universe, which includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that only transport natural gas liquids are not included in the EIA-163 frame. Only those pipeline companies which transport products covered in the weekly survey are included.

**EIA-164:** Uses the EIA-90 universe, which consists of all trunk pipeline companies in the United States and its territories which transport crude oil, all refining companies, all crude oil producers, all terminal operators, and all storers of 1,000 barrels or more of crude oil.

**EIA-165:** Uses the ERA-60 universe, which includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico.

#### **Sampling**

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for the previous time period.

#### **Collection Methods**

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. All canvassed firms and terminal operating companies must file by 5:00 p.m. on the Monday following the close of the report period, 7 a.m. Friday. During the processing week, company corrections of the prior week's data are also entered.

### Formula and Calculations

After the company reports have been checked and entered into the weekly data base, ratio estimates of the weekly totals are calculated from the reported data.

First, the current week's data for a given product reported by companies in that region are summed. (Call this weekly sum,  $W_s$ .) Next, the most recent month's data for the product reported by those same companies are summed. (Call this monthly sum,  $M_s$ .) Finally, let  $M_t$  be the sum of the most recent month's data for the product as reported by *all* companies. Then, the current week's ratio estimate for that product for all companies is given by.

$$W_t = \frac{M_t}{M_s} \circ W_s$$

This procedure is used directly to estimate total weekly inputs to refineries and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Under such conditions, the ratio method is known to result in large errors. Hence, a number of other procedures for estimating weekly imports were considered. The average ratio method was selected for estimating imports because it produces estimates that were close to benchmark values computed from monthly data. Estimates are obtained using the ratio method, but with each company in turn omitted from the sample. These estimates are then averaged to obtain the average ratio estimate.

### Imputing Missing Data

The ratio method of estimation automatically imputes for nonresponse. Data from companies that do not respond are excluded from both the weekly and the monthly totals for the sampled companies.

### Response Rates

The response rate as of the day after the filing deadline is about 80 percent for the EIA-161; 75 percent for the EIA-162; 95 percent for the EIA-163; 80 percent for the EIA-164; and greater than 95 percent for the EIA-165. However, more forms are received the next day, bringing the final response rates up. Late respondents are contacted by telephone. Nearly all of the major companies report on time. The nonresponse rate for the published estimates is usually between 2 percent and 5 percent.

## Note 1.4 EIA-170: Tanker and Barge Shipments of Crude Oil and Petroleum Products Between Districts

### Background

The EIA-170 survey collects data for calculation of monthly petroleum supply and disposition figures on U.S. and PAD District levels.

### Instrument and Design

This form is designed to collect data on total movements by tanker and barge of crude oil and petroleum products between PAD Districts or between PAD Districts and the Panama Canal, by shipping State and receiving State.

### Universe

The respondent universe of the EIA-170 consists of all known companies and plants that have custody of crude oil and petroleum products transported by tanker and barge between PAD Districts or between PAD Districts and the Panama Canal. There are currently about 60 respondents.

### **Collection Methods**

Survey data are collected by mail every month. The filing deadline is the 20th calendar day of the month following the report period. The response rate as of the filing deadline is about 98 percent. Late respondents are contacted by telephone. All responses are processed each month before release of the data for publication.

## **Note 1.5 ERA-60: Reports of Oil Imports into the United States and Puerto Rico**

### **Background**

The "Report of Oil Imports into the United States and Puerto Rico" (ERA-60) survey was designed by the Economic Regulatory Administration (ERA) of the Department of Energy to collect data on port of entry, country of origin, destination, and quantity of imported crude oil and petroleum products, as well as sulfur content and API gravity. All licensed importers and importers of record are required to report. The "Shipments of Refined Products from Puerto Rico to the United States" (P-133-M-O) survey was designed to collect data on imports to the United States that are not covered by the ERA-60.

### **Universe**

The monthly submission of Form ERA-60 and P-133-M-O is required by all licensed importers and importers of record into the United States and Puerto Rico. The respondent universe consisted of approximately 750 firms as of June 30, 1981. The respondent universe for these surveys is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

### **Collection Methods**

The survey data are collected by mail each month. It is mandatory for each respondent to file the ERA-60/P-133-M-O by the 15th working day of the month following the reporting period. Resubmissions are received frequently and are processed when received.

### **Response Rates**

In December 1980, the survey had a response rate of 92 percent by the filing deadline. The universe was 640 at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard followup of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. Response rate is generally 98-99% by the time the data are first published. Revised publications are not generated as standard operating procedure. The ERA-60 file is never closed; resubmissions are constantly received and processed.

## **Note 1.6 Census Import (IM-145) and Export (EM-522 and EM-594) Tabulations**

The foreign trade statistics program, conducted by the Bureau of the Census, involves compilation and dissemination of a large body of data relating to the imports and exports of the United States.

### **Import Statistics**

#### **Coverage**

The import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. Customs territory (includes the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

1. Merchandise shipped in transit through the United States, when documented with Customs as an intransit movement.
2. Shipments between the United States and Puerto Rico, the Virgin Islands, Guam, American Samoa, and other U.S. possessions; shipments between any of these outlying areas; and imports into U.S. possessions from foreign countries.
3. U.S. merchandise returned by U.S. Armed Forces for their own use.

#### **Source of Import Information**

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501- 7505).

Imported petroleum is reported as "Imports for Consumption." Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

#### **Country and Area of Origin**

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

### **Export Statistics**

#### **Coverage**

The export statistics reflect both government and nongovernment exports of domestic and foreign merchandise from the U.S. Customs territory (includes the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

1. Shipments between the United States and Puerto Rico, the Virgin Islands, Guam, American Samoa, and other U.S. possessions; between any of these outlying areas; and shipments from U.S. Possessions to foreign countries.
2. Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
3. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

#### **Source of Export Information**

The official U.S. export statistics are compiled by the Bureau of the Census primarily from copies of Shipper's Export Declarations. Shipper's Export Declarations are required to be filed with Customs officials, except when qualified exporters have been authorized to submit data in the form of magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations directly to the Bureau of the Census.

#### **Country and Area of Destination**

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

## Note 2 Estimation

The geographic coverage of all estimates is the 50 United States and the District of Columbia, including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

### Note 2.1 Supply

The components of petroleum supply are field production, refinery production, imports, stock withdrawal or addition, crude oil used directly, and losses.

**Field Production** is the sum of crude oil (including lease condensate) production, natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation and revenue agencies. Reports of crude oil production from each of the 31 producing States are not received until several months after the other components of petroleum supply described in Explanatory Note 2.1 are available for publication. For an explanation of the crude oil estimation procedure used until the State reports are complete, see Explanatory Note 2.2.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-64, "Natural Gas Liquids Operation Report." Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.1.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-64, "Natural Gas Liquids Operations Report." Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.1.

**Refinery Production** of LRGs, ethane, and finished petroleum products is reported monthly on survey Form EIA-87, "Refinery Report." Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Refinery production is also reported weekly on survey Form EIA-161, "Refinery Report." See Explanatory Notes 1.2 and 1.3 for survey descriptions and other detail. It should also be noted that refineries do not report production of crude oil, natural gasoline, isopentane, unfractionated stream, plant condensate, or other hydrocarbons and alcohol.

**Imports** of crude oil and petroleum products are reported monthly on Form ERA-60, "Report of Oil Imports into the United States and Puerto Rico," and Form P-133-M-O, "Shipments of Refined Products (including unfinished oils) from Puerto Rico to the United States." In addition, the Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501 and 7505. The most prominent difference between the EIA and Census systems appears in imports of liquefied petroleum gases (LPG), where Census data show a much higher level of imports than Energy Information Administration data. This occurs because the ERA-60 respondent frame was built by monitoring importers of licensed products and because LPGs are not licensed products. Therefore, respondents that only import LPGs have not been identified, and do not report these imports to the Department of Energy. Since these importers are required to file form 7501 with the U.S. Customs Service, EIA obtains data on imports of LPGs from Census Tabulation IM-145. Additional data taken from the IM-145 are relatively small quantities of naphtha and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade and for military offshore use. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the ERA-60 reporting system.

Imports are also reported weekly on survey Form EIA-165, "Imports Report." See Explanatory Notes 1.3, 1.5, and 1.6 for survey descriptions and other detail.

**Stock Withdrawal (+) or Addition (-)** is calculated by subtracting stocks at the end of the month from stocks at the beginning of the month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks and an increase in petroleum supplies distributed for domestic consumption. A negative result (-) would represent a buildup of stocks and reduce petroleum supplies distributed for domestic consumption. For survey forms used to make stock withdrawal or addition calculations see Explanatory Note 2.4.

**Unaccounted-for Crude Oil** is a balancing item that represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production, imports and stock withdrawal or addition, less crude used directly and losses. Crude oil disposition is the sum of exports and refinery input.

Unaccounted-for crude oil is calculated by subtracting crude oil supplies from crude oil disposition. A negative result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used. This calculation is performed for crude oil to ensure that product supplied for crude oil is always zero.

**Crude Oil Used Directly and Losses** is the sum of crude oil losses at refineries, crude oil burned at refineries, and crude oil burned on leases. Crude oil losses and consumption at refineries are reported on Form EIA-87, "Refinery Report." Crude oil burned on leases is reported on Form EIA-90, "Crude Oil Stocks Report." Crude oil burned on leases is divided into two categories: crude burned as residual fuel oil and crude burned as distillate fuel oil. Crude burned on leases appears as a negative supply to crude oil (a reduction in crude oil supplies) and as a positive supply to residual and distillate fuel oil (an increase to these supplies).

## Note 2.2: Domestic Crude Oil Production

Data for the Crude Oil Production System (COPS) are reported to the Department of Energy by each of the individual State conservation agencies, which collect crude oil production values for tax purposes. In addition, the U.S. Geological Survey reports the volume of crude oil that is produced offshore in Federally-owned waters. With the exception of six State conservation agencies, all of these reports are received monthly. After each calendar year, these monthly numbers are updated using the annual reports from the State conservation agencies and the U.S. Geological Survey. The six States that do not report monthly values are Indiana, New York, Ohio, Pennsylvania, West Virginia, and Wyoming. Monthly values are estimated for these States using the individual linear trends of their historical annual crude oil production values.

There is a time lag of approximately 3 to 4 months between the end of the reporting month and the time when the actual values are available for this publication. In order to provide more timely crude oil production estimates, the Department of Energy has established a series of statistical models that forecast the volume of crude oil production based on the historical production patterns. The models use Auto Regressive Integrated Moving Average (ARIMA) to analyze series of monthly crude oil production values collected over several years.

In order to provide detailed crude oil production information on both the PAD District level and for the major producing States, the total United States crude oil production volume was separated into nine distinct groupings. The nine different time series are the monthly reported crude oil production volumes for: (1) all the States in PAD District 1; (2) all the states in PAD District 2; (3) Texas; (4) Louisiana; (5) the States in PAD District 3 excluding Texas and Louisiana; (6) all the States in PAD District 4; (7) Alaska; (8) California; and (9) the States in PAD District 5 excluding Alaska and California. Monthly data collected beginning in January 1973 are used for each of these time series.

A separate ARIMA model is identified for each time series. New model parameters are estimated monthly for each of these nine updated time series. Then, these ARIMA models are used to forecast crude oil production volumes for the month of interest. These values are then aggregated into PAD District and national totals. The forecasts made during 1981 had an average error of less than 0.6 percent compared to the monthly crude oil production volumes eventually reported by the States.

## Note 2.3 Disposition

The components of petroleum disposition are refinery input, exports, and products supplied for domestic consumption.

**Refinery Inputs** of crude oil, NGPL and other liquids are reported monthly on survey Form EIA-87, "Refinery Report." Published inputs of unfinished oils, and motor and aviation gasoline blending components, equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production. Refinery inputs are also reported weekly on survey Form EIA-161, "Refinery Report." See Explanatory Notes 1.2 and 1.3 for survey description and other details.

**Exports** of crude oil and petroleum products are compiled from Census Bureau tabulations EM522 and EM594. Exports include crude oil shipments to Puerto Rico, the Virgin Islands, and the Hawaiian Foreign Trade Zone, which are obtained from refinery receipts reported on Form EIA-87.

**Product supplied** for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, plus crude oil used directly and losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply. Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative when total disposition of that product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported, (2) misreporting or delayed reporting of data, and (3) for calculations on a PAD District basis, incomplete coverage of interdistrict movements data compiled to calculate net receipts.

## Note 2.4 Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-87, "Refinery Report," and Form EIA-90, "Crude Oil Stocks Report." Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in transit is also included. Stocks of crude oil are also reported weekly on Form 161, "Refinery Report," and Form EIA-164, "Crude Oil Stocks Report." Primary stocks of petroleum products are summed from data reported on the Form EIA-64, "Natural Gas Liquids Operations Report," Form EIA-87, "Refinery Report," Form EIA-88, "Bulk Terminal Stocks Report," and Form EIA-89, "Pipeline Products Stocks Report." Primary stocks of petroleum products do not include secondary stocks held by dealers and jobbers, or stocks held by consumers. Petroleum product stocks are also reported weekly on Form EIA-161, "Refinery Report," Form EIA-162, "Bulk Terminal Stocks Report," and Form EIA-163, "Pipeline Products Stocks Report." For survey descriptions and other details see Explanatory Notes 1.1, 1.2, and 1.3.

## Note 2.5 Average Stock Levels

The graphs displaying monthly stock levels of petroleum products, crude oil, motor gasoline, distillate fuel oil, residual fuel oil, liquified petroleum gases and ethane, and other products provide the user with recent data as well as a summary of data from the most recent 3 year period from January through December or from July through June. This summary takes the form of an "average range" that includes seasonal variation determined from a longer time period. The average range represents the historical pattern; it is not a forecast.

These curves are updated every 6 months effective January 1 or July 1 by basing the "average ranges" on a more recent time period. At that time, each 3-year data series will be adjusted by dropping the first 6 months and including the most recent 6 months.

For each data series, the monthly seasonal factors were estimated by means of a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors were assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported stock levels). The intent of deseasonalization is to remove only seasonal variation from the data. Thus, a deseasonalized series would contain the same trends and irregularities as the original data. For crude oil stocks, the derived seasonal factors were very small relative to crude oil stock levels. Therefore, the seasonal factors for crude oil stock levels were set to zero. The seasonal factors for total petroleum (crude and products), distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane, and other products were derived using monthly data from 1974-1980. For motor gasoline, the seasonal factors were based on monthly data from 1975, 1976, 1978, 1979 and 1980. In 1977, there was virtually no seasonal behavior in motor gasoline stocks. Monthly stock levels stayed at the same high level for the entire year. In addition, the seasonal patterns in 1973 and 1974 appeared to be different from those in recent years. It was therefore assumed that the seasonal patterns in 1973, 1974, and 1977 were not representative of the recent past, and these years were not used in the determination of seasonal patterns for motor gasoline stocks. Because of these differences in the year-to-year seasonal fluctuation of motor gasoline, the evidence for the illustrated seasonal patterns for total petroleum (crude and products), crude oil, distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane, and other products is stronger than is the evidence for the illustrated seasonal patterns for motor gasoline.

In some cases, these seasonal patterns do not show a smooth transition from month to month. For example, the June factor for residual fuel oil is slightly less than the May and July values, making a bump in the curve. As there is little difference in the magnitude of these seasonal factors, it is possible that this variation is due to the small number of observations (7 years) and the data variability.

After seasonal factors are derived, the most recent 3 year period (from January through December or from July through June) is deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard error of the deseasonalized 36 months is calculated adjusting for extreme data points. The width of the "average range" is twice this standard error.

The upper curve of the "average range" is defined as the average plus the seasonal factors plus the standard error. The lower curve is defined as the average plus the seasonal factors minus the standard error.

## **Note 2.6 Movements**

Movements of crude oil between PAD Districts are reported on Form EIA-170, "Tanker and Barge Report." Petroleum product movements are reported on Forms EIA-170 and EIA-89, "Pipeline Products Report." Net receipts are calculated by summing total movements into and total movements from each PAD District by pipelines, tankers, and barges, and subtracting for the difference. Movements of crude oil by pipeline are not reported. For survey descriptions and other detail, see Explanatory Notes 1.2 and 1.4.

## **Note 2.7 Preliminary Monthly Statistics**

Data from the Weekly Petroleum Reporting System (Forms EIA-161, 162, 163, 164 and 165) are used to estimate the most recent monthly values for the historical statistics. Since some of the weekly reporting periods overlap 2 adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To calculate monthly estimates of crude oil and petroleum product imports, crude oil input to refineries, and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel and residual fuel) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the 2 weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of earlier of the 2 weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 2.2.

### Note 3 Accuracy of Petroleum Supply Data

Early in 1981, the Energy Information Administration completed an assessment of the accuracy of principal petroleum supply data series.<sup>1</sup> This assessment concentrated on two methods of analysis:

- Comparisons between EIA's final annual estimates published in the *Petroleum Statement Annual (PSA)* and annual estimates from independent sources.
- Comparisons between EIA's final monthly estimates published in the *PSA* and EIA's earlier estimates published in the *Monthly Petroleum Statistics Report* and the *Petroleum Statement, Monthly* (predecessor of the *Monthly Petroleum Statement*).

Selected excerpts from these comparisons are presented below.

#### Comparisons of Annual Estimates

All of the systems that provide data for the *Petroleum Supply Monthly*, except for the weekly systems, try to collect data from the entire universe of their potential respondents. They do not sample, and have no sampling errors. Inaccuracies in the data still occur because of problems such as incomplete lists of respondents, errors in the responses, and conceptual errors in the design of the data systems. Such inaccuracies are hard to identify and even harder to quantify. Some understanding of the overall accuracy of the estimates can be achieved by comparing estimates derived from independent sources of data, as shown in the following tables. Close agreements among annual estimates from several independent sources support the conclusion that the estimates are accurate, and accuracy in the annual estimates implies accuracy in the monthly estimates that comprise the annual estimates.

#### Crude Oil Production

Comparisons among independent estimates of annual crude oil and lease condensate production lead to the conclusion that the *PSA* estimates are probably accurate to within 1 percent.

#### Crude Oil Imports

Comparisons among independent estimates of annual crude oil imports lead to the conclusion that the *PSA* estimates are probably accurate to within 1 percent. This conclusion is supported by a study of EIA and Customs/Census import data performed for EIA.<sup>2</sup>

#### Motor Gasoline Supplied

Comparisons among independent estimates of the annual volume of motor gasoline supplied for domestic use show that differences in the estimates grew between 1977 and 1979. By 1979, the EIA estimate of sales by refiners and the Environmental Protection Agency's estimate of production had grown about 5-7 percent larger than the comparable *PSA*, Lundberg, and American Petroleum Institute (API) estimates. Research conducted by EIA in 1979 and 1980<sup>3</sup> confirmed that the lower

<sup>1</sup>An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0292, June 1981.

<sup>2</sup>Maxima Corporation, *Petroleum Imports Reporting Systems, Preliminary Draft*, (Silver Spring, Maryland: February 1980). Prepared for the Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, Washington, D.C.

<sup>3</sup>Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *An Evaluation of Published EIA Gasoline Supply Estimates* (Washington, D.C.: April 1980).

estimates were inaccurate, and identified changes in the petroleum industry that had an adverse effect on the *PSA* estimate. During 1980, EIA developed and tested improved procedures for collecting petroleum supply data, and implemented them in January 1981. (See Explanatory Note 4.)

### Distillate Fuel Oil Supplied

Comparisons among independent estimates of the annual volume of distillate fuel oil supplied for domestic use lead to the conclusion that the *PSA* estimates are probably accurate to within 1 to 2 percent.

### Residual Fuel Oil Supplied

Comparisons among independent estimates of the annual volume of residual fuel oil supplied for domestic use seem to show sizable and consistent differences between the EIA estimates of sales by refiners and the *PSA* and API estimates. When imports of residual fuel oil by nonrefiners are added to the refiner sales, however, the difference between refiner sales and the *PSA* estimates are narrowed to within 1 percent. The comparisons therefore lead to the conclusion that the *PSA* estimates are probably accurate to within 1 to 2 percent.

### Comparison of Estimates of the Volume of Crude Oil and Lease Condensate Production, 1977-1979

	Estimated Volume of Production in Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Comparative Estimate as a Percent of the <i>PSA</i> Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from Petroleum Statement Annual <sup>b</sup>	3,121	3,178	3,009	///	///	///
Comparative Estimates						
American Petroleum Institute Estimate from API Monthly Statistical Report <sup>c</sup>	3,130	3,214	3,021	100.3%	101.1%	100.4%
Census Estimate from the Annual Survey of Oil and Gas <sup>d</sup>	—	3,148	3,016	—	99.1%	100.2%
Oil and Gas Journal Estimates <sup>e</sup> of Total Production derived from Monthly Data	3,168	3,165	3,005	101.5%	99.6%	99.9%
EIA Estimate from Annual Survey of Oil and Gas Reserves (EIA-23) <sup>f</sup>	3,102	3,144	3,001	99.4%	98.9%	99.7%

/// = Not applicable

— = Not available

<sup>a</sup>Volumes are rounded to the nearest million barrels.

<sup>b</sup>From Table 6 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979.

<sup>c</sup>From issues of the American Petroleum Institute's *Monthly Statistical Report*. The annual values were obtained by summing the monthly values for each of the twelve-month periods.

<sup>d</sup>From Table 1, p.2 of the Bureau of Census' *Annual Survey of Oil and Gas*, 1978.

<sup>e</sup>From issues of the *Oil and Gas Journal*. Monthly estimates are in thousands of barrels per day. They are converted to millions of barrels by dividing by 1,000 and multiplying by the number of days in the reporting period.

<sup>f</sup>From EIA's *U.S. Crude Oil and Natural Gas Reserves 1979 Annual Report* (Table 19, p. 33), *1978 Annual Report* (Table 16, p. 20), and *1977 Annual Report* (Table 22, p.36).

Geographic coverage: the 50 United States and District of Columbia with adjacent areas of the Outer Continental shelf.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

# Comparison of Estimates of the Volume of Crude Oil Imports, 1977-1979

	Volume of Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Comparative Estimates as a Percent of the Primary Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate of Receipts at Ports of Entry (ERA-60) from <i>Petroleum Statement, Annual</i> <sup>b</sup>	2,380	2,320	2,414	///	///	///
<u>Comparative Estimates</u>						
American Petroleum Institute Estimate of Receipts as Reported by Refiners <sup>c</sup>	2,346	2,323	2,360	98.6%	100.1%	97.8%
Customs/Census Estimate of Receipts at Ports of Entry (Customs Forms 7501 and 7502) <sup>d</sup>	2,415	2,338	2,431	101.5%	100.8%	100.7%
EIA Estimate of Inputs of Foreign Crude at Refineries (ETA-87) <sup>e</sup>	2,364	2,334	2,431	99.3%	100.6%	100.7%

/// = Not applicable

<sup>a</sup>Volumes are rounded to the nearest million barrels.

<sup>b</sup>From Table 1 in EIA's *Petroleum Statement Annual* 1977, 1978, 1979. This table also includes imports for the Strategic Petroleum Reserve (SPR) which were 7.5 million in 1977, 58.8 million in 1978, and 24.4 million in 1979.

<sup>c</sup>Estimate equals the sum of the annual estimate of imports derived from API's *Monthly Statistics Report* (which excludes imports for SPR), and the EIA estimates for imports for the SPR which are listed in footnote b above. The annual estimates from API data are equal to the sum of the API monthly estimates weighted by the number of days in each month.

<sup>d</sup>Data on imports to Puerto Rico which are included in the source for these estimates have been excluded from these estimates in keeping with the geographic coverage of the table. Data are from computer printouts of the Bureau of Census Report IM-245-X dated April 3, 1980 (1977 and 1978 data) and December 19, 1980 (1979 data).

<sup>e</sup>Estimate equals refinery inputs of foreign crude plus (minus) stock increases (decreases) of foreign crude. The data for the computation are published in EIA's *Petroleum Statement, Annuals*. The stock changes (all increases) are derived from data on stocks of crude oil at refineries, bulk terminals, and pipelines as reported on Form EIA-90, plus the increase in the SPR. This estimate excludes crude oil imported and not used as refinery input.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

**Comparison of Estimates of the Volume of Motor Gasoline Supplied for Domestic Use, 1977-1979**

	Volume in Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Volume Supplied as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement, Annual</i> <sup>b</sup>	2,573	2,711	2,625	///	///	///
<b>Comparative Estimates</b>						
EIA Estimate of Sales by Refiners (P-306) <sup>c</sup>	2,708	2,792	2,671	105.2%	103.0%	101.8%
Environmental Protection Agency Estimate derived from Production Data <sup>d</sup>	2,766	2,851	2,706	107.5%	105.2%	103.1%
Lundberg Surveys, Inc. Estimate of U.S. Motor Gasoline Sales <sup>e</sup>	2,631	2,746	2,656	102.3%	101.3%	101.2%
American Petroleum Institute Estimate of Deliveries <sup>f</sup>	2,579	2,697	2,612	100.2%	99.5%	99.5%

/// = Not applicable

<sup>a</sup>Volumes are rounded to the nearest million 42-U.S. gallon barrels.

<sup>b</sup>Derived from Table 2 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979.

<sup>c</sup>Derived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products* 1977, 1978, 1979.

<sup>d</sup>The estimate shown is derived by substituting EIA Domestic Production values with values of domestic production tabulated from the Environmental Protection Agency Bq. Form 3520-2, "Lead Additive Report for Refineries." The EPA production estimates are 2,694 million barrels in 1977, 2,757 in 1978, and 2,648 in 1979 as compared from a summary sheet provided by Mr. Bob Summerhayes of EPA.

<sup>e</sup>From the mid-June issues of the "National Petroleum News," 1979 and 1980.

<sup>f</sup>API publishes monthly estimates in thousands of barrels per month of the volume of motor gasoline delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of motor gasoline multiplied by the number of days per month.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

**Comparison of Estimates of the Volume of Distillate Fuel Oil (Including Kerosene) Supplied for Domestic Use, 1977-1979**

	Volume in Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Volume Supplied as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement Annual</i> <sup>b</sup>	1,269	1,307	1,275	///	///	///
<b>Comparative Estimates</b>						
EIA Estimate of Sales by Refiners (P-306) <sup>c</sup>	1,282	1,275	1,242	101.0%	97.6%	97.4%
American Petroleum Institute Estimate of Deliveries <sup>d</sup>	1,291	1,300	1,277	101.7%	99.5%	100.2%

/// = Not applicable

<sup>a</sup>Volumes are rounded to the nearest million 42-U.S. gallon barrels.

<sup>b</sup>Derived from Table 2 in EIA's "Petroleum Statement Annual", 1977, 1978, 1979.

<sup>c</sup>Derived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products*, 1977, 1978, 1979.

<sup>d</sup>API publishes monthly estimates in thousands of barrels per month of the volume of distillate and kerosene delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of distillate and kerosene multiplied by the number of days per month.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

**Comparison of Estimates of the Volume of Residual Fuel Oil Supplied for Domestic Use, 1977-1979.**

	Volume in Millions of 42-U.S. Gallon Barrels <sup>a</sup>			Volume Supplied as a Percent of the PSA Estimates		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement, Annual</i> <sup>b</sup>	1,024	1,095	1,109	///	///	///
<b>Comparative Estimates</b>						
EIA Estimate of Sales by Refiners (P-306) <sup>c</sup>	796	832	847	80.8%	79.6%	80.1%
American Petroleum Institute Estimate of Deliveries <sup>d</sup>	1,044	1,101	1,114	102.0%	100.5%	100.4%

/// = Not Applicable

<sup>a</sup>Volumes are rounded to the nearest million 42-U.S. gallon barrels.

<sup>b</sup>Derived From Table 2 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979. Refinery fuel use, subtracted from the figures in the source referenced below, has been reinstated in these estimates.

<sup>c</sup>Derived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products*, 1977, 1978, 1979.

<sup>d</sup>API publishes monthly estimates in thousands of barrels per month of the volume of residual fuel oil delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of residual fuel oil multiplied by the number of days per month.

Geographic Coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

## Comparisons of Monthly Estimates Over Time

Inaccuracies in petroleum data resulting from incomplete or delayed reports from respondents and from data processing errors are usually eliminated from the final PSA estimates. Such inaccuracies can still have important effects on the monthly estimates published in the *Petroleum Supply Monthly* and its predecessors. The following tables compare the initial monthly estimates published in the *Monthly Petroleum Statistics Report* and the *Petroleum Statement, Monthly* with the final monthly estimates published in the PSA. During 1977-1979, the *Monthly Petroleum Statistics Report* was published about 60 days after the end of the reporting month, and the *Petroleum Statement, Monthly* was published about 120-150 days after the end of the reporting month. The tables show that, both in terms of bias and in terms of standard deviation, the later estimates are consistently more accurate than the earlier estimates. In spite of this, the earlier estimates may have been more valuable to users of energy information because of the large difference in timeliness.

For purposes of comparison, the *Petroleum Supply Monthly* is scheduled to be published on about the same time lag as the *Monthly Petroleum Statistics Report*. Caution should be exercised, however, in drawing conclusions from this similarity. The *Petroleum Supply Monthly* uses improved data processing procedures developed and successfully implemented during 1981. In addition, since 1979, EIA has greatly improved the accuracy of its 60-day crude oil production estimates and is making progress in improving the accuracy of its 60-day import estimates.

**Initial Monthly Estimates of Production, Stocks, and Imports of Crude Oil As A Percent of EIA's Final Published Estimates <sup>a</sup>  
January 1977 - December 1979**

	<u>Production During Month</u>		<u>Primary Stocks At End of Month</u>		<u>Imports During Month</u>	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report<sup>b</sup></i>	# 98.7%	1.6%	# 98.3%	1.4%	# 95.4%	2.4%
EIA's Estimates from the <i>Petroleum Statement, Monthly<sup>c</sup></i>	# 99.6%	0.6%	100.0%	0.1%	# 98.4%	1.3%

**Initial Monthly Estimates of Products Supplied for Domestic Use as A Percent of EIA's Final Published Estimates <sup>a</sup>  
January 1977 - December 1979**

	<u>Motor Gasoline</u>		<u>Distillate Fuel Oil</u>		<u>Residual Fuel Oil</u>	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report<sup>b</sup></i>	99.9%	1.3%	99.9%	2.3%	# 97.9%	2.7%
EIA's Estimates from the <i>Petroleum Statement, Monthly<sup>c</sup></i>	100.0%	0.3%	99.7%	0.5%	99.4%	1.2%

**Initial Monthly Estimates of End-of-Month Primary Stocks As a Percent of EIA's Final Published Estimates <sup>a</sup>  
January 1977 - December 1979**

	<u>Motor Gasoline</u>		<u>Distillate Fuel Oil</u>		<u>Residual Fuel Oil</u>	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report<sup>b</sup></i>	99.7%	0.8%	99.7%	1.1%	100.1%	0.7%
EIA's Estimates from the <i>Petroleum Statement, Monthly<sup>c</sup></i>	99.9%	0.2%	100.0%	0.1%	100.1%	0.5%

# Represents a difference from 100% found to be statistically significant at the 95% level of confidence (n = 36).

<sup>a</sup>Final monthly estimates are from the "Petroleum Statement, Annual" for 1977, 1978 and 1979. The mean percent is calculated as follows: each preliminary estimate is first expressed as a percent of EIA's final published estimate, these are then summed and the sum is divided by the number of estimates. The standard deviation is the square root of the quantity computed by summing the squared deviation of the percents from the mean percent and then dividing by the number of percents.

<sup>b</sup>Based on 36 initial estimates appearing in issues dated January 1977 - December 1979.

<sup>c</sup>Based on 36 initial estimates appearing in issues dated January 1977 - December 1979.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

## Note 4 Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting systems.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings throughout 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

### Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. This difference increased to about 4 percent in 1979 and 5 percent in 1980. There are two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference—in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied. EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years. EIA has recently published a study of the quality of these FHWA data.<sup>1</sup>

<sup>1</sup>Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *Error Profile of the Motor Fuel Taxation Data used to Establish and Monitor State Emergency Conservation Targets* (Washington, D.C.: December, 1981).

**Finished Motor Gasoline Product Supplied on Old and New Basis  
(Thousand Barrels per Day)**

	1979				1980			
	EIA Reported	API Recast	EIA Recast	FHWA <sup>1</sup>	EIA Reported	API Recast	EIA Recast	FHWA <sup>1</sup>
Jan	6,830	7,230	7,084- 7,246	6,984	6,323	6,789	6,630- 6,791	6,672
Feb	7,254	7,496	7,389- 7,568	7,538	6,596	6,983	6,831- 7,003	6,830
Mar	7,229	7,414	7,301- 7,463	7,316	6,406	6,753	6,607- 6,768	6,713
Apr	7,055	7,300	7,187- 7,353	7,375	6,800	7,014	6,886- 7,052	6,981
May	7,213	7,429	7,313- 7,475	7,428	6,729	6,954	6,823- 6,984	7,044
Jun	7,191	7,483	7,350- 7,516	7,441	6,657	6,966	6,824- 6,991	7,049
Jul	6,902	7,241	7,105- 7,266	7,299	6,743	6,973	6,960	7,132
Aug	7,330	7,546	7,426- 7,588	7,619	6,648	6,841	6,828	7,090
Sep	6,881	7,122	7,016- 7,262	7,232	6,510	6,692	6,962	6,685
Nov	6,791	7,068	6,956- 7,122	7,142	6,234	6,507	6,516	6,951
Dec	6,730	7,106	6,966- 7,127	7,064	6,632	6,948	6,936	6,993
<b>Average</b>	7,034	7,302	7,183- 7,347	7,309	6,579	6,882	6,806- 6,889	6,925

<sup>1</sup>FHWA gasoline statistics published in their 1979 Table MF-33G, 08-06-80, contain aviation gasoline as well as motor gasoline. Only motor gasoline data are included in published 1980 data. Consequently, the 1979 data shown above were reduced by subtracting aviation gasoline product supplied quantities as published by EIA in the 1979 *Petroleum Statement Annual*. The 1980 FHWA data published in their 1980 Table MF-33GA, August 1981, did not require this adjustment.

### Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oil produced by a refinery is shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981 this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1980 as published (adjusted) and on the same basis as 1981 statistics are now being completed (unadjusted) to permit comparison between 1980 and 1981 data series. Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

**Adjusted and Unadjusted Refinery Production, and Unadjusted Product Supplied of Distillate and Residual Fuel Oils, by Month for 1979 and 1980 (Thousand Barrels Per Day)**

**1979**

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,043	3,108	65	4,646	1,912	1,946	34	3,594
Feb.	2,888	2,945	57	4,869	1,792	1,822	30	3,625
Mar.	3,019	3,026	7	3,671	1,719	1,723	4	3,243
Apr.	2,945	2,978	32	3,048	1,639	1,656	17	2,524
May	3,066	3,093	27	3,025	1,586	1,600	14	2,517
Jun.	3,153	3,187	35	2,743	1,548	1,566	18	2,601
Jul.	3,305	3,344	38	2,601	1,575	1,594	20	2,471
Aug.	3,321	3,359	38	2,799	1,584	1,603	20	2,570
Sep.	3,354	3,306	-48	2,599	1,627	1,602	-25	2,584
Oct.	3,251	3,217	-34	3,085	1,629	1,612	-17	2,523
Nov.	3,239	3,200	-39	3,208	1,736	1,716	-20	2,795
Dec.	3,221	3,238	17	3,725	1,894	1,903	9	3,022
Average	3,152	3,169	16	3,327	1,687	1,695	8	2,834

**1980**

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,013	3,093	80	3,794	1,771	1,812	41	3,108
Feb.	2,766	2,888	122	3,834	1,773	1,836	63	3,168
Mar.	2,557	2,690	133	3,312	1,584	1,652	68	2,726
Apr.	2,460	2,554	94	2,729	1,595	1,643	48	2,492
May	2,474	2,610	136	2,538	1,509	1,579	70	2,305
Jun.	2,646	2,721	75	2,392	1,575	1,613	38	2,359
Jul.	2,689	2,783	94	2,343	1,480	1,528	48	2,339
Aug.	2,461	2,582	121	2,258	1,444	1,506	62	2,348
Sep.	2,686	2,726	40	2,627	1,495	1,516	21	2,380
Oct.	2,589	2,650	61	2,981	1,512	1,543	31	2,258
Nov.	2,703	2,823	120	3,069	1,579	1,641	62	2,513
Dec.	2,891	3,052	161	3,776	1,660	1,743	83	2,762
Average	2,661	2,764	103	2,969	1,580	1,634	54	2,562

**Total Petroleum Products**

The imbalance between the supply and disposition of unfinished oils is now reported as part of the reclassified products (line 39) in the U.S. Petroleum Balance (Table 1). Imbalances between the supply and disposition of gasoline blending components comprise the remainder of the reclassified in Table 1. These imbalances are reported as negative product supplied in the Other Liquids section of the table of Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

## Note 5 Notes on Tables

**5.1 Crude Oil and Petroleum Products Overview** statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (-), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.

- Natural Gas Plant Production is the sum of Natural Gas Plant Liquids and Finished Petroleum Products Field Production in Table 4.

- Petroleum Products Imports is the sum of Natural Gas Plant Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.

- Petroleum Products Exports is the sum of Natural Gas Plant Liquids and LRGs, Other Liquids, and Finished Petroleum Products Exports in Table 4.

- Total Crude Oil and Petroleum Products Ending Stocks appear in thousands of barrels in Table 2.

**5.2 Crude Oil Supply and Disposition** statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Imports Gross Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (-), Unaccounted For Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.

- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousands of barrels in Table 1.

- Total Crude Oil Ending Stocks appear in thousands of barrels in Table 2.

- Total Imports appear in Table 4.

**5.3 Finished Motor Gasoline Supply and Disposition** statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.

- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.

- Ending Stocks appear in thousands of barrels in Table 2.

**5.4 Distillate and Residual Fuel Oil Supply and Disposition** statistics on the referenced lines appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Crude Used Directly, Exports, and Product Supplied appear as labeled in Table 4.

- Ending Stocks appear in thousands of barrels in Table 2.

**5.5 Liquefied Petroleum Gases and Ethane** statistics represent the aggregation of statistics on ethane, propane, butane, butane-propane mixtures, ethane-propane mixtures, and isobutane. The statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousands of barrels in Table 2.

**5.6 Other Petroleum Products Supply and Disposition** statistics represent the aggregation of statistics on natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil. The statistics on the referenced line are aggregated from Table 4 of the Detailed Statistics, except where noted.

- Total Production is the aggregated sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.
- Ending stocks are aggregated from ending stocks in thousands of barrels in Table 2.

#### **Note 5.7 Table 1. U.S. Petroleum Balance**

- Lines (1) through (3) of Table 1: Crude oil (including lease condensate) production for "Alaska," "Lower 48 States," and "Total U.S." are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 2.2), and taking the difference to equal production in the lower 48 states.
- Line (5) of Table 1: SPR imports are reported on Survey Form ERA-60.
- Line (12) of Table 1: "Total Other Sources" equals crude oil stock withdrawal (+) or addition (-) plus unaccounted for crude oil plus crude used as fuel and losses in Table 2.
- Line (14) of Table 1: Natural gas plant liquids (NGPL) "Production" equals field production of natural gas plant liquids (NGPL) plus field production of finished petroleum products in Table 2.
- Line (15) of Table 1: NGPL "Imports" equals the sum of the imports of natural gasoline and isopentane, unfractionated stream, and plant condensate imports in Table 2.
- Line (16) of Table 1: NGPL "Stock Withdrawal (+) or Addition (-)" is equal to the sum of stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate in Table 2.
- Line (17) of Table 1 equals the sum of lines (14), (15), and (16) of Table 1.
- Line (18) of Table 1: unfinished oils and gasoline blending components "Stock Withdrawal (+) or Addition (-)" equals stock withdrawal (+) or addition (-) for other hydrocarbons and alcohol, for unfinished oils, motor gasoline blending components, and aviation gasoline blending components.
- Line (20) of Table 1: "Other Hydrocarbons and Alcohol New Supply" equals the field production of same in Table 2.
- Line (21) on Table 1: "Refinery Processing Gain" is a balancing item equal to total refinery production minus total refinery input in Table 2.
- Line (22) on Table 1: "Crude Used Directly" equals the sum of crude oil used directly as distillate and residual fuel oils in Table 2.
- Line (23) of Table 1: "Total Other Liquids" equals the sum of lines (18) through (22) of Table 1.
- Line (24) of Table 1: "Total Production of Products" equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or

addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil used as distillate and residual fuel oils in Table 2.

- Line (25) of Table 1: "Gross Imports of Refined Products" equals imports of LPG and ethane plus imports of finished petroleum products in Table 2.

- Line (26) of Table 1: "Exports of Refined Products" equals exports of LPG and ethane plus exports of finished petroleum products in Table 2.

- Line (27) of Table 1: "Net Imports of Refined Products" equals the difference between lines (25) and (26) of Table (1).

- Line (28) of Table 1: "Total New Supply of Products" equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil used as distillate and residual fuel oils; plus imports of LPG and ethane and finished petroleum products; minus exports of LPG and ethane and finished petroleum products in Table 2.

- Line (29) of Table 1: "Refined Products Stocks Withdrawal (+) or Addition (-)" equals the sum of stock withdrawal (+) or addition (-) for LPG and ethane, and finished petroleum products in Table 2.

- Line (30) of Table 1: "Total Petroleum Products Supplied for Domestic Use" equals total products supplied in Table 2.

- Lines (31) through (37) of Table 1 equal the respective products supplied in Table 2.

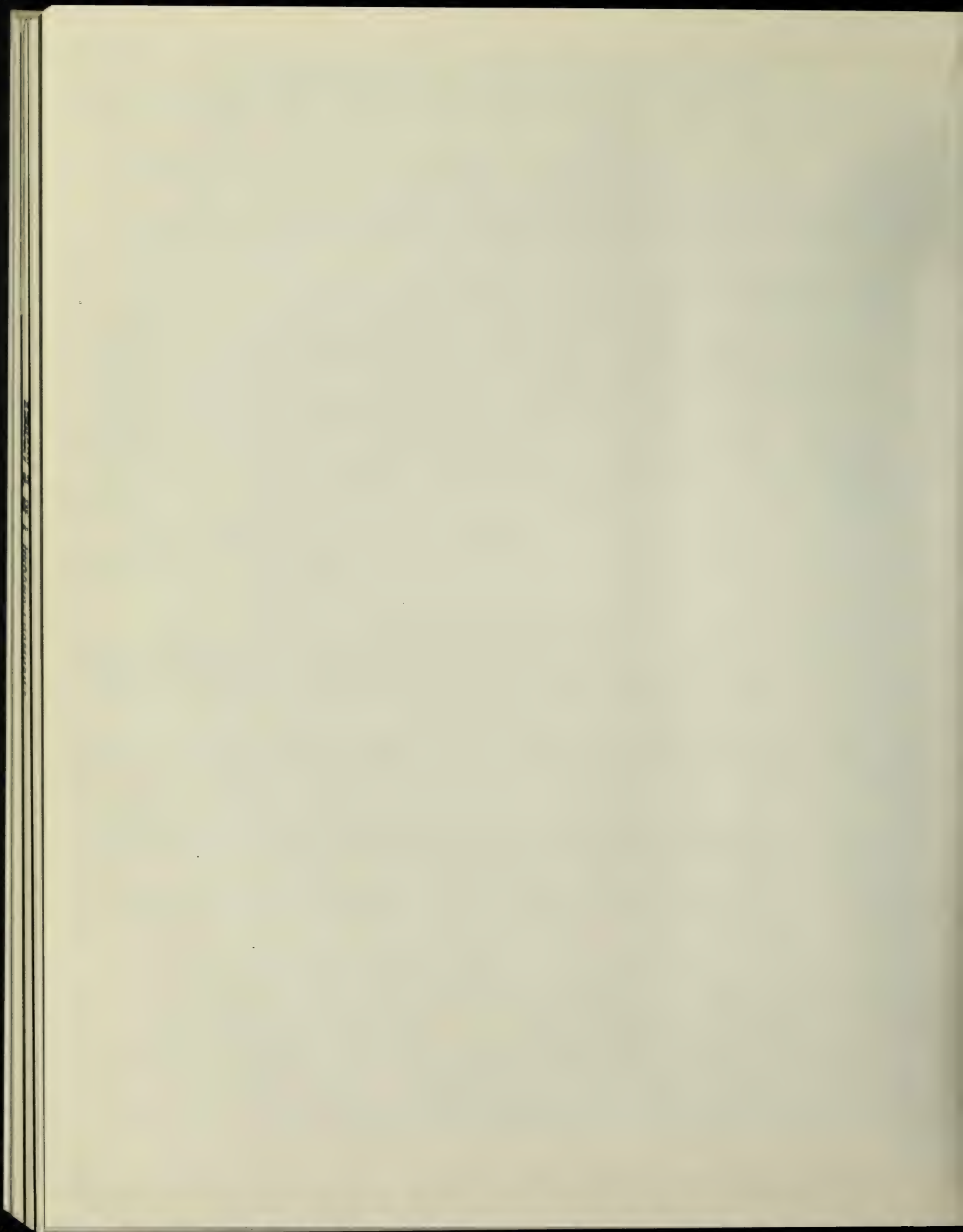
- Line (38) of Table 1: "Other Products Supplied" equals the sum of natural gasoline and isopentane, unfractionated stream, plant condensate, aviation gasoline, naphtha < 400 Deg. F for petrochemical feedstock uses, other oils > 400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, coke, asphalt, road oil, still gas, and miscellaneous products supplied in Table 2.

- Line (39) of Table 1: "Total Reclassified" is a balancing item equal to the sum of unfinished oils, motor gasoline blending components, and aviation gasoline blending components products supplied in Table 2.

- Line (40) of Table 1: "Total Product Supplied" is equal to total products supplied in Table 2.

- The sum of lines (41) and (42) of Table 1, stocks of "Crude Oil and Lease Condensate (Excluding SPR)" and stocks held by the "Strategic Petroleum Reserve," equals ending stocks of crude oil in Table 2. SPR stocks are reported on Form EIA-90.

- Line (46) of Table 1, stocks of "Refined Products," equals the sum of LPG and ethane and finished petroleum product stocks in Table 2.



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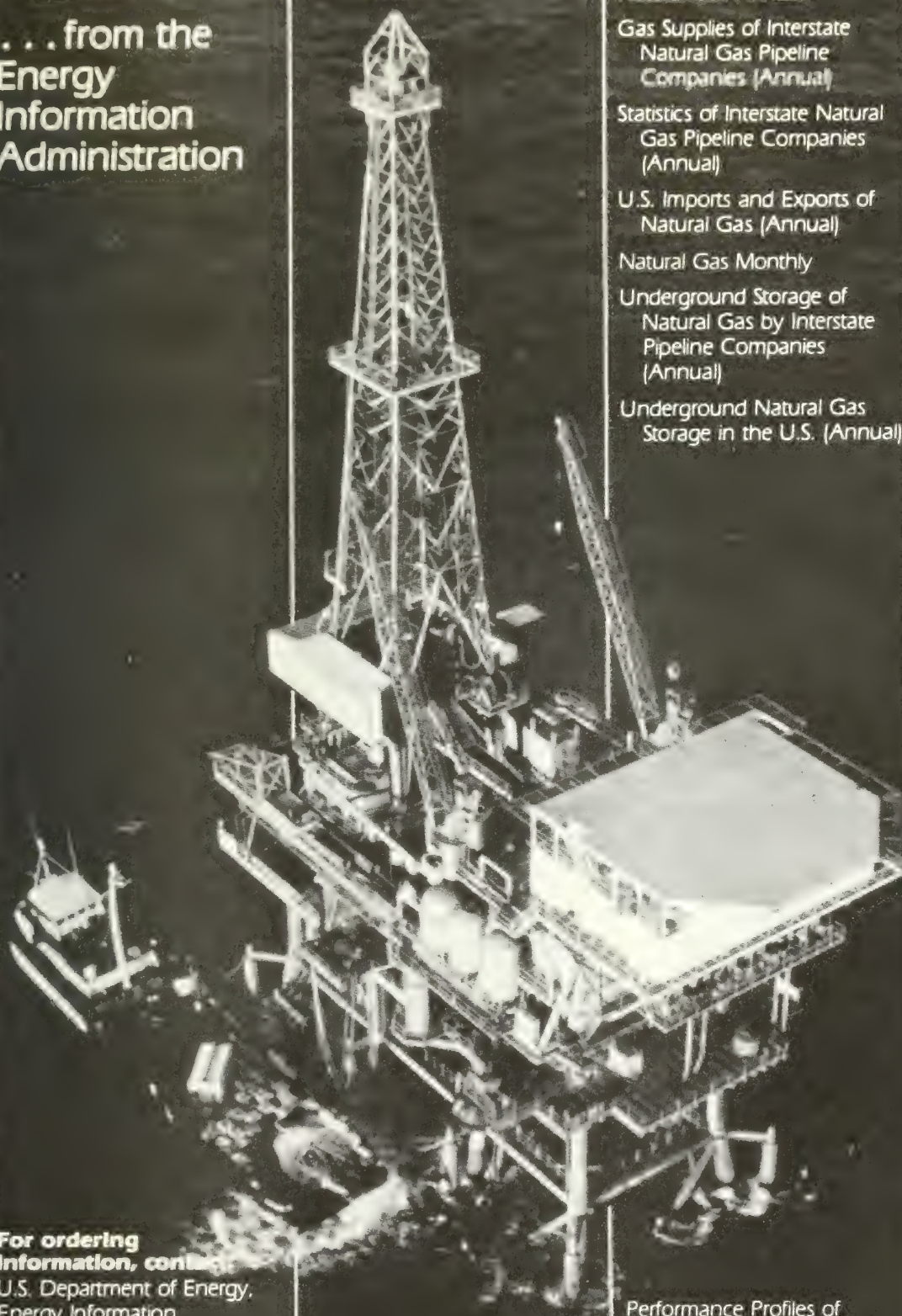
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